

The Urban World

Quarterly Publication



**Regional Centre for Urban and Environmental Studies
All India Institute of Local Self-Government, Mumbai**





Regional Centre for Urban & Environmental Studies (RCUES), Mumbai (Supported by the Ministry of Housing and Urban Affairs, Government of India)

Established in 1926, the All India Institute of Local Self Government (AIILSG), India is a premier autonomous research and training institution in India. The Institute was recognized as an Educational Institution by Government of Maharashtra in the year 1971. The Institute offers several regular training courses in urban development management and municipal administration, which are recognized by the Government of India and several State Governments in India.

In the year 1968, the Ministry of Housing and Urban Affairs (MoHUA), earlier Ministry of Urban Development), Government of India (GoI) established the Regional Centre for Urban & Environmental Studies (RCUES) at AIILSG, Mumbai to undertake urban policy research, technical advisory services, and building work capabilities of municipal officials and elected members from the States of Goa, Gujarat, Maharashtra, Rajasthan and UTs of Diu, Daman, Dadra & Nagar Haveli. The Ministry of Housing and Urban Affairs (MoHUA), Government of India added States of Assam and Tripura from February, 2012 and Lakshadweep from August 2017 to the domain of RCUES of AIILSG, Mumbai. The RCUES is supported by the MoHUA, Government of India. The MoHUA, Government of India has formed National Review and Monitoring Committee for RCUES under the chairmanship of the Secretary, MoHUA, Government of India. The Principal Secretary, Urban Development Department, Government of Maharashtra is the ex-officio Chairman of the Advisory Committee of the RCUES, Mumbai, which is constituted by MoHUA, Government of India.

The RCUES was recognized by the Ministry of Urban Development, Government of India as a National Training Institute (NTI) to undertake capacity building of project functionary, municipal officials, and municipal elected members under the earlier urban poverty alleviation programme-UBSP. The RCUES was also recognized as a Nodal Resource Centre on SJSRY (NRCS) and Nodal Resource Centre (NRC) for RAY by Ministry of Housing and Urban Poverty Alleviation, Government of India.

The AIILSG, Mumbai houses the Solid Waste Management (SWM) Cell backed by the Government of Maharashtra for capacity building of municipal bodies and provide technical advisory services to ULBs in the State. The Water Supply & Sanitation Department (WSSD), Government of Maharashtra (GoM) established Change Management Unit (CMU) in AIILSG, Mumbai from 13th January, 2010 to 30th June, 2014 and also selected AIILSG, Mumbai as a Nodal Agency in preparation of City Sanitation Plans for 19 Municipal Corporations and 15 A Class Municipal Councils in Maharashtra State, under the assistance of Ministry of Urban Development, Government of India. The WSSD, GoM also established Waste Management & Research Centre in AIILSG, Mumbai, supported by Government of Maharashtra and MMRDA.

In August, 2013 Ministry of Urban Development, Government of India empanelled the AIILSG, Mumbai as Agency for providing technical support to the Cities / Towns of States / Urban Local Bodies (ULBs) in the field of Water Supply and Sanitation, Sewerage and Drainage systems.

In July 2015, Ministry of Urban Development, Government of India empanelled the RCUES & AIILSG, Mumbai an Agency for technical support in Municipal Solid Waste Management under Swachh Bharat Mission (SBM) programmes.

In February, 2016, Ministry of Housing and Urban Poverty Alleviation, Government of India empanelled the RCUES of AIILSG, Mumbai for conducting training and capacity building programme for experts of SMMU, CMMUs, COs, Key Officials and other stakeholders of the State and Urban Local Bodies (ULB) level under Deendayal Antyodaya Yojana – National Urban Livelihoods Mission (DAY – NULM).

In December, 2017, AIILSG has been empanelled as a training entity regarding implementation of new Integrated Capacity Building Programmes (ICBP) under Urban Missions, viz. Atal Mission for Rejuvenation and Urban Transformation (AMRUT), Swachh Bharat Mission (SBM), Smart Cities Mission (SCM), National Urban Livelihoods Mission (NULM), Housing for All (HFA), Pradhan Mantri Awas Yojana (PMAY) and Heritage City Development and Augmentation Yojana (HRIDAY) for Elected Representatives and Municipal Functionaries.

At present, RCUES and AIILSG, Mumbai is involved in providing capacity building, research and technical support to number of State Governments and ULBs for implementing various urban development missions and programmes launched by the GoI.

Mr. Ranjit Chavan

President, AIILSG

Editorial Board-

Editor-in-Chief

Dr. Jairaj Phatak, IAS (Retd.)

Director General, AIILSG

Editor

Ms. Utkarsha Kavadi

Director, RCUES of AIILSG, Mumbai

Editorial Board Members

- ◆ **Dr. Snehalata Deshmukh**
Former Vice-Chancellor, University of Mumbai, Mumbai.
- ◆ **Dr. Joop W. de wit**
Senior Lecturer, Institute of Social Studies, the Hague, the Netherlands.
- ◆ **Mr. Ajitkumar Jain, IAS (Retd)**
Sr. Advisor and Director, Centre for Sustainable Governance, AIILSG, Mumbai.
- ◆ **Mr. Mahesh Pathak, IAS**
Principal Secretary, Urban Development, Government of Maharashtra & Ex-officio Chairman, RCUES, Advisory Committee.
- ◆ **Dr. Dinesh Mehta**
Professor Emeritus, CEPT University, Ahmedabad.
- ◆ **Dr. Vibhuti Patel**
Former Professor, Tata Institute of Social Sciences & SNDT Women's University, Mumbai.
- ◆ **Dr. Vandana Desai**
Senior Lecturer in Development Studies and Director MA/Msc Development and Environment, Department of Geography, Royal Holloway, University of London, U.K.
- ◆ **Mr. Fazalahmed Khan**
Advisor, AIILSG, Mumbai.

The Urban World - Quarterly Publication of Regional Centre for Urban and Environmental Studies of All India Institute of Local Self-Government, Mumbai

(October-December, 2021)

For Contact

Ms. Utkarsha Kavadi

Director

Regional Centre for Urban & Environmental Studies of
All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
Opp. Government Colony Bldg. No. 326, TPS Road No.12, (BKC)
Bandra (East), Mumbai - 400 051, India
Tel : 8657622550 / 51 / 52 / 54
Email : dir.rcues@aiilsg.org / utkarshakavadi@yahoo.com

Published by -

Dr. Jairaj Phatak, IAS (Retd.),

Director-General

All India Institute of Local Self-Government,
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
Opp. Government Colony Bldg. No. 326, TPS Road No.12, (BKC)
Bandra (East), Mumbai - 400 051, India
Tel : 8657622550 / 51 / 52 / 54
Email : dg@aiilsg.org
Website : www.aiilsg.org

The opinions expressed in the articles / presentations herein are those of the authors. They do not reflect the opinions of the Regional Centre for Urban and Environmental Studies, All India Institute of Local Self Government, Mumbai, Ministry of Housing and Urban Affairs, Government of India or Publisher.

Printed by **All India Institute of Local Self-Government, Mumbai.**

Contents

- **Editorial**
- **A Study of Socio-Economic and Psychological Impact of COVID Pandemic on Women Labours of Unorganized Sector in Pune.** **01-09**
Ms. Renuka Kad,
Research & Programme Head,
Vikas Adhyayan Kendra,
Mumbai.

Prof. Dr. Yusuf Bennur,
Mentor,
Department of Social Work,
Mahatma Gandhi Mission Deemed University,
Aurangabad.
- **Affordable Housing Programme in the Context of Slum Free Smart City: Case of Vadodara.** **10-26**
Dr. Joy Karmakar,
Lecturer,
Department of Geography,
Serampore College,
Hooghly, West Bengal
- **Critical Assessment of Public Hygiene in COVID-19 : A Case Study of Women's Public Toilet in Aligarh City.** **27-32**
Ms. Nalini Bhattar & Mr. Harshit Agrawal,
Postgraduates,
Centre for Women's Studies,
Aligarh Muslim University,
Aligarh, Uttar Pradesh.
- **ROUND & ABOUT** **33-37**
Mr. Fazalahmed Khan,
Advisor,
All India Institute of Local Self-Government (AIILSG),
Mumbai.

RCUES Key Publications

1. Urban Development.
2. Urban Planning.
3. Solid Waste Management - Resource Material.
4. Hospital Medical Waste Management.
5. Planning for Urban Informal Sector in Highly Dense Cities.
6. Study of Municipal Schools with Special Focus on Drop-outs, Standard of Education and Remedies.
7. Rainwater Harvesting.
8. Institutionalisation of Citizen's Participation in Urban Governance.
9. Gender Budgeting.
10. Gender Equality in Local Government - Comparative Study of Four States in Western Region in India.
11. Mapping of Basic Services in Urban Slums.
12. Basic Services to the Urban Poor.
13. Health.
14. Security of Tenure.
15. Resettlement and Rehabilitation.
16. Mumbai Human Development Report, 2009.
(UNDP / MOH & UPA, GOI / MCGM).
17. Resource Material on Urban Poverty Alleviation.
18. Laws of Meetings.
19. Resource Material on Preparation of City Sanitation Plan (CSP) & Capacity Building for Urban Local Bodies.
20. Implementation of 74th CAA, 1992 in Urban Local Bodies and Impact Assessment of Training of Women Elected Members.

For Contact

Ms. Utkarsha Kavadi

Director

Regional Centre for Urban & Environmental Studies of
All India Institute of Local Self-Government
M. N. Roy Human Development Campus, Plot No.6, 'F' Block,
Opp. Government Colony Bldg. No. 326, TPS Road No.12, (BKC)
Bandra (East), Mumbai - 400 051, India
Tel : 8657622550 / 51 / 52 / 54
Email : dir.rcues@aillsg.org / utkarshakavadi@yahoo.com

Editorial

The urban India is preparing seriously for combating 3rd wave of COVID-19 pandemic. Highly infectious mutation of virus, Omicron variety that was supposed to have occurred in July 2022, has arrived 6 months in advance. In November alone, over 15.6 million cases were reported around the world.

After alfa variant in the UK, Beta variant in South Africa and Gamma variant of virus in Brazil, Delta variant of played havoc found in several parts of India, what is in store as omicron variant spreads? There is fear about Eta (UK & Nigeria), Iota (New York), Kappa (Uttar Pradesh) & Lambda (Peru and little less scary Epsilon (California), Zeta (Rio de Janeiro) & Theta (Philippines and Japan).

In the 1st wave, death toll was highest for the elderly citizens, the 2nd wave took a heavy toll of young citizens. It is predicted that the 3rd wave will affect children adversely.

There is an urgent need to put in place countrywide clinical data for disease and outcome monitoring by institutionalising robust Hospital Monitoring System. During the 1st and 2nd wave, the urban primary health care with strong public health capacity for early case detection, contact tracing, home care and vaccination was evolved by capacity building by elected representatives and administrators. This process along with judicious implementation of COVID-19 protocols - wearing of masks, physical distancing and high standards of sanitation, safe housing in clean environment become imperative in the current context. For this regular consultation and guidance of public health practitioners' collective wisdom is need of an hour. India has performed relatively better in terms of more than half of the population given the 1st vaccine. Still vaccine gap persists due to cost consideration, vaccine hesitancy and vaccine shortage.

Volunteers who are tirelessly working to get hospital beds, oxygen cylinders, concentrators, BiPAP machines are now suffering from PTSD in the form of acute grief, hopelessness, guilt, anger, anxiety, depression, panic attacks. Acute pain of being lonely, fear of getting stigmatised if infected by coronavirus, & lonely deaths in COVID centre and stress due to economic insecurity demand community based mental health counselling and helplines for psychological counselling. Climate change is another important concern for the urban governance. The Urban Indian decision makers have made valuable contribution in COP26 in the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow on 1-12 November 2021.

The urban life is slowly and gradually getting back to outdoor activities for work, education as mobility of citizens is facilitated by the public transport.

The Urban World invites scholars, policy makers, practitioners, urban planners and researchers to send their original research-based articles and book reviews with special focus on developmental concerns of the Urban India.

A Study of Socio-Economic and Psychological Impact of COVID Pandemic on Women Labours of Unorganized Sector in Pune

Ms. Renuka Kad,

Research & Programme Head, Vikas Adhyayan Kendra, Mumbai, Maharashtra.

Prof. Dr. Yusuf Bennur,

Mentor, Department of Social Work,

Mahatma Gandhi Mission Deemed University, Aurangabad, Maharashtra.

Abstract

COVID pandemic has made severe effects on the unorganized sector of economy and livelihood of the unorganized labours of this sector; especially it is badly impacted on the women labours. Due to the COVID pandemic unorganized women labours are severely vulnerable to exploitation and human rights, violation and faced many other socio-economic and psychological problems and issues during the pandemic period. Through the study, an attempt has been made to focus on the major socio-economic, psychological and health related problems faced by the unorganized women labours. The present study also focuses on the various measures adopted by the women labours individually and measures adopted by state and central government to overcome the socio-economic problems arose due to COVID pandemic.

Key words

COVID pandemic, socio-economic problems, unorganized women labour, governments measures.

1) Introduction

The COVID-19 disease has made various severe challenges in terms of social economical, psychological etc. This disease has badly impacted on almost all the sectors in India. Informal or

unorganized sector is not exception for this. COVID pandemic has not only adversely impacted on the unorganized sector and the employment in this sector but also adversely impacted on the socio-economic conditions of unorganized labours especially on the women labours. Majority of the women labours have faced job and income losses, and food shortage. It is also caused to increase the health related problems and psychological problems as a result of COVID pandemic, and nationwide long period lockdown because of financial uncertainty and the social distancing.

The government efforts and public health efforts have not considered the socio-economic and health related and psychological issues pertaining to the women labours in unorganized sector in India. During the lockdown period the informal sector in India came under critical stagnation, and consequently the unorganized labours belonged to this sector are stressed on the financial front for their survival individually. The socio-economic situation of women labours is worst affected due to the COVID pandemic and long term lockdown. Majority of the poor and underprivileged people are dependent on the unorganized sector and therefore, the labours have been badly suffered by this crisis during the lockdown period. Small shop owners, salespersons, construction labours, labours in logistic/transportation organizations, agricultural labours, domestic helpers, street vendors, garbage collectors, hotel/restaurant

workers etc. are worse affected throughout the pandemic period along with their families. In this context, through the present study an attempt have been made to identity that, in what way the unorganized women labours are impacted due to COVID pandemic in terms of socio-economic and psychological conditions.

II) Review of Literature

- i) Saudamini Das and Ajit Mishra, (2020), have discussed on the impacts of COVID-19 pandemic on the unorganized labours in slum areas of Delhi, and focused on their efforts to coping with the pandemic situation and the benefits they received through the various welfare schemes provided by the government. It is observed that, majority of the labours could not take advantage of the schemes either because of their unawareness and lack of social security entitlement identification documents.
- ii) Farzana Afridi, (2021), has focused on the impact of COVID pandemic crisis on the issue like gendered dimensions of employment in informal sector and psychological health among the women labours in this sector during the COVID pandemic period. Through the study author has focused on the relevance of understanding the psychological impacts of COVID pandemic and its potential long term effects on the economic recovery and unorganized labour productivity.
- iii) Sharad Chandra S. (2020) has focused on the unorganized women labours to study their socio-economic, physical and psychological conditions during the COVID pandemic period. Through the study author has discussed about the various measures taken by the state and central government to overcome the problems faced by unorganized labours during the pandemic period. In the opinion of author there should be immediate and long term

support by the government to the unorganized labours in terms of economically and social security measures.

- iv) Ankita Kakkar and Chaitali Roy, (2020), have discussed on the effects of COVID pandemic and lockdown on the working women in unorganized sector. Through the study, author have observed that, due to the pandemic and lockdown unorganized women labours faced the various financial and social challenges, their mental stress, is also increased, and there is also adverse impact on their health condition. Authors have also focused on the various initiatives taken by the state and central government to overcome the socio-economic problems faced unorganized women labours in the pandemic period.

III) Objectives of the Study

1. To focus on the major problems faced by the unorganized sector women labours.
2. To understand the socio economic impact of COVID pandemic on the women labours of unorganized sector.
3. To understand the health and psychological impact of COVID pandemic on the women labours of unorganized sector.
4. To know about the various measures adopted by the unorganized women labours to overcome the financial problem during the COVID pandemic period.
5. To know about the Government (Central and State) schemes to overcome the various problems faced by women labours of unorganized sector during the COVID pandemic period and it's awareness among them.

IV) Research Methodology

This study is descriptive in nature. A survey method has been applied for the study. To fulfill the objectives of the study primary information collected from the women labours working in unorganized sector through the questionnaire. The questions included in the questionnaire have been developed to get responses specific to the objectives of the study. The primary information has been collected from unorganized women labours working in agricultural sector, hotel or restaurants, women maids etc. Secondary information has been collected from the study papers, articles, published in various national and international journals and published books and literature available on Internet is also referred for the study purpose. The collected primary information has been analyzed by using percentage method.

Convenient sampling method has been applied for the selection of population for the study purpose. The sample population consisted with 160 women labours (Respondents) working in various unorganized sector's organizations in Pune city and vicinity of the Pune city (that is, rural parts nearby Pune city)

V) Results and Discussion

As per the collected information it is observed that, majority of respondents (36%) (Women labours) are belonging to the age group of 26 to 35 years of age group. 28% respondents belonging to the age group of 18 years to 25 years, 24% respondents are in the age group of 36 years to 45 years, and only 12% respondents are in the age group of 46 years to 55 years.

The following **Table 2** indicates the educational qualification of the respondents.

Table 1: Age-wise Distribution of the Respondents

Sr. No.	Age group (years)	Frequency	Percentage
01	18 to 25	45	28%
02	26 to 35	58	36%
03	36 to 45	38	24%
04	46 to 55	19	12%
	Total	160	100%

Table 2: Educational Qualification of the Respondents

Sr. No.	Educational qualification	Frequency	Percentage
01	Primary	96	60%
02	Secondary	46	29%
03	Higher Secondary	13	08%
04	Above higher secondary	05	03%
	Total	160	100%

It is found that, majority of the respondents (60%) have completed their primary level education. 29% respondents have completed their secondary level education. 8% respondents completed higher secondary education and only 3% respondents are having above higher secondary level education.

In all, 21% respondent's monthly income is below Rs. 10000. Majority of the respondent's monthly income is between Rs. 10000 to 15000, 26% respondent's monthly income is ranging from Rs. 15001 to Rs. 20000, and only 11% respondent's monthly income is above Rs. 20000. Very few of the respondents earning adequate income from their jobs or occupations.

Several sever problems have been faced by the women labours engaged in unorganized sector to

know about. What kind of problems they have faced by the women labours during the COVID pandemic period is the important objective of the present study. The following **Table 4** indicate the facts in this regard.

Due to the COVID-pandemic and lockdown, 45% respondent's majority faced socio-economic as well as health and psychological problems very severely. 35% respondents have stated that, they faced only socio-economic problems, and 20% respondents have stated that they faced health and psychological problems very severely during the COVID pandemic period. Almost all the respondents have faced socio-economic problems and health psychological related problems during the COVID times.

Table 3: Monthly Income-wise Distribution of the Respondents

Sr. No.	Monthly Income (Rs.)	Frequency	Percentage
01	Below Rs. 10000 Rs.	33	21%
02	Rs. 10000 to 15000 Rs.	68	42%
03	Rs. 15001 to 20000 Rs.	42	26%
04	Above Rs. 20000	17	11%
	Total	160	100%

Table 4: Problems Majority Faced by the Respondents during the COVID Pandemic Period

Sr. No.	Nature of Problems	Frequency	Percentage
01	Socio-economic	56	35%
02	Health-psychological	32	20%
03	All the above problems	72	45%
	Total	160	100%

From the study point of view, it is very important to focus on the social problems that are severely faced by the respondents during pandemic period. The following **Table 5** shows the facts in this context.

As per the information provided by the respondents, it is found that, 13% of them faced various restrictions on the participation in various family and social events or ceremonies as a major social problems during the pandemic period. Stigma and discrimination at work place by the other was the major social problems faced by 10% respondents. For the 5% respondents, unilaterally termination of service by the employer was the major social problem during the pandemic period. Majority of the respondents have (72%) stated that, restrictions on transportation and rigid rules of social distance, exploitation by employers and heavy workload are also some of the major social problems faced by women labours during the pandemic period. Apart from this, majority of the respondents have faced domestic violence during this period, they have experienced spousal

violence. Limitations and restriction the mobility has caused to increase the domestic violence against women labours, and due to lockdown were unable to get help from outsiders. This was the major social problem for them in the COVID pandemic period.

COVID pandemic has not only made the negative social impact on the livelihood of the women labours of unorganized sector but also made adverse and negative impact on their economic conditions. To understand the nature of economic problems faced by the women labours is one of the important objectives of the study. The following **Table 6** shows the facts in this regard.

As per the information provided by the respondents, 13% of them faced economic problem due to increase in monthly expenses. 15% respondents have stated that, there was a delay in payment of their wages by their employers. Sometimes employers denied payment for non-working days. Some respondents did not receive

Table 5: Nature of Social Problems (Faced during Pandemic Period)

Sr. No.	Nature of Social Problems	Frequency	Percentage
01	Restrictions on the participation in family and social events/ceremonies	21	13%
02	Stigma and discrimination by others	16	10%
03	Unilaterally termination of service	08	05%
04	Other social problems	115	72%
	Total	160	100%

Table 6: Nature of Economic Problems (Faced during Pandemic Period)

Sr. No.	Nature of Economic Problems	Frequency	Percentage
01	Increase in monthly expenses	20	13%
02	Delay in payment of wages	25	15%
03	Increased indebtedness	18	11%
04	All the above	97	61%
	Total	160	100%

their wages from the first month of the lockdown, which has caused to acute distress and sudden increase in monthly expenditure. 11% of the respondents have faced the economic problem arose due to increased indebtedness. The indebtedness has increased due to half wages of usual wages or lack of wages. Majority of the respondents (61%) have faced all the above mentioned economic problems during the pandemic period. They deprived of any benefits provided to wage labourers.

Limitations through social restrictions, gender stereotypes, long term quarantining at home and diversion of resources to respond to the COVID pandemic have also negatively impacted on the health condition of the unorganized women labours. This has created limitations on their ability to get health services and make them susceptible to health related risks. The following **Table 7** indicates the nature of health related problems majority faced by the respondents during the pandemic period.

25% respondents have faced the problem of frequent headache and body pain due to mentally stress during the pandemic period. 21% respondents have stated that they have faced the severe problem of weakness or illness. 18% respondents faced the problem of high or low blood pressure due to mentally tension. Majority of the respondents have faced the problem like dyspepsia, unavailability of doctors, diversion of routine health care services towards corona patients etc.

Home quarantine and social isolation has caused to create social and economically highly stressful condition. This has led to growth in the psychologically adverse impact on the women labours during the pandemic period. During the pandemic period several psychological problems faced by the respondents. The following **Table 8** indicates the facts in this regard.

Total of 21% respondents have stated that, they have faced the problem of anxiety about future very severely during the pandemic period. 24% respondents have faced the problem of insomnia or

Table 7: Nature of Health Related Problems (Faced during Pandemic Period)

Sr. No.	Nature of Health Problems	Frequency	Percentage
01	Frequent headache/body pain	40	25%
02	Severe weakness/illness	34	21%
03	High/low blood pressure	29	18%
04	Other problems	57	36%
	Total	160	100%

Table 8: Nature of Psychological Problems (Faced during Pandemic Period)

Sr. No.	Nature of Psychological Problems	Frequency	Percentage
01	Anxiety	33	21%
02	Sleeplessness/insomnia	39	24%
03	Severe depression	34	21%
04	Other problems	54	34%
	Total	160	100%

sleeplessness, 21% have faced severe depression due to socio-economic problems, and 34% of them have faced the other problems like negativity towards life, fear, anger etc. Sudden socio-economic negative impacts on the livelihood of the unorganized women labours have caused for increasing negative effects on their psychological condition.

The following **Table 9** shows the various measures adopted by the respondents to overcome the economic problems faced by them during the pandemic period.

In all, 36% respondents have reported that, they have managed household expenditure with their half or inadequate wages during the pandemic period. 25% respondents stated that, they have forced to borrow money from others like friends, relatives etc. for the household expenditure, 19% of

the respondents have used their savings for fulfilling the family expenditures during the COVID pandemic period 20% of the respondents have reported that, they have sold their jewelry and other precious things or valuables to meet household expenses, some of them also borrowed money from private money lenders on higher interest rate. This indicates that, during pandemic period dynamics of the household expenditure have changed drastically for the women labours working in unorganized sector. Due to this majority of the respondents are still facing the indebtedness.

For the in-depth study point of view a question has been asked to the respondents, whether they know about the various schemes implemented by the state and central government to overcome the economic problems faced by them during the pandemic period. The following **Table 10** indicates the facts in this regard.

Table 9: Measures Adopted by the Respondents to Overcome the Economic Problems

Sr. No.	Measures	Frequency	Percentage
01	Manage with half wages	57	36%
02	Borrow money from others	40	25%
03	Use of saving	30	19%
04	Other	33	20%
	Total	160	100%

Table 10: Knowledge about State-Central Government's Schemes to Overcome Economic Problems

Sr. No.	Schemes	Frequency	Percentage
01	Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGA)	47	29%
02	Pradhan Mantri Shram Yogi Mandhan (i.e. Honorarium)	66	41%
03	Women Entrepreneurship Platform	13	08%
04	Other schemes	27	18%
05	No any knowledge	07	04%
	Total	160	100%

As per the information provided by the respondents, majority of them (41%) are having knowledge about the Pradhan Mantri Shram Yogi Mandhan, which is implemented all over India with the aim of helping to unorganized labours to overcome their financial problems arose due to COVID pandemic. 29% respondent have stated that they know about the MNREGA scheme. 8% respondents are having knowledge or women entrepreneurship platform and 18% of the respondents are known about the other schemes such as free ration, free gas cylinders through Ujjwala Scheme, Antyodaya for the Below Poverty line (BPL) households etc. To a great extent all these schemes are proved as very helpful to the beneficiaries during the COVID pandemic period.

VI) Findings of the Study

- 1) As per the collected primary information, it is found that, majority of the respondents are in the age group of 26 to 35 years. Very few of the respondents are in the age group of 46 to 55 years.
- 2) As per the information provided by the respondents, it is found that, majority of the respondents earning (monthly) is ranging from Rs. 10000 to Rs. 15000. Very few of them earn Rs. 20000 and above per month. Their present income is not adequate to cope with the life style of the metropolitan city like Pune.
- 3) It is found that, majority of the respondents have completed their primary education and secondary education. Very few of them completed higher secondary and above higher secondary education.
- 4) It is found that, almost all the respondents have faced various types of socio-economic, health and psychological problems severely during the pandemic period.
- 5) Limitations or restrictions on the participation in family and social events, stigma and discrimination by others, termination of job, spousal violence, and restrictions on mobility are some of the major social problems faced by the respondents.
- 6) Increase in monthly household expenses, delay in payment by the employers, increased indebtedness are some of the major economic problems faced by the respondents during the pandemic period.
- 7) Frequent headache and body pain, severe weakness and illness, high and low blood pressure are the major health related problems faced by the respondents. Apart from these problems they are also faced the problems like dyspepsia, unavailability of doctors etc. during the pandemic period.
- 8) During the COVID pandemic period almost all the respondents have faced the psychological problems such as anxiety, severe depression, insomnia fear, anger etc. The intensity of socio-economic problems has caused to increase in psychological problems.
- 9) To overcome the economic problems, respondents have adopted various measures such as-manage household expenditure with inadequate earning, borrow money from friends, relatives and even from private money lenders on higher interest rates. Some of the respondents have used their savings and sold their valuables, jewelry to meet the household expenditures during pandemic period.
- 10) As per the information provided by the respondents it is found that, majority of them are having knowledge about various schemes/programmes implemented by the state and central government. Off the record, some respondents have stated that, these schemes/programmes have benefited for their survival during the pandemic period.

VII) Conclusion

Due to lockdown and COVID pandemic there are several emotional, psychological problems faced by the unorganized women labours along with socio-economic problems and constraints, which have made their livelihood more stressful. Food

insecurity predominantly affects the psychological and health conditions of the women labours. Thus it is concluded that, COVID pandemic and the ensuing vulnerabilities have aggravated and reinforced the socio-economic inequities related to the unorganized women labour.

References

- 1) B. S. Sumalata, (2021), "Impact of COVID-19 on information sector: A Study of women domestic workers in India," *The Indian Economic Journal* Vol. 69, No. 3.
- 2) Anita Kakkar, (2020), "Impact of COVID-19 on working women in India: A Holistic Approach" *Manpower Journal*, Vol. 15, No. 3.
- 3) Sharadchandra S. (2020), "Impact of COVID-19 on labours of unorganized sector," *Indian Journal of social and political science*, Vol. 2, No. 3.
- 4) Farzana Afridi, (2021), "The gendered crisis: livelihoods and mental well-being in India during COVID-19," *WIDER working paper* 2021/65.
- 5) Saudamini Das and Ajit Mishra, (2020), "COVID-19 lockdown, how people managed and impact of welfare schemes on informal sector workers: Evidence from Delhi Slums," *IEG Working paper* No. 409.
- 6) S. K. Mishra, (2021), "COVID-19 and Informal Labour in India," Report published by Jawaharlal Nehru University, N. Delhi.
- 7) Kashif Mansoor, (2020), "COVID-19 Lockdown Impact on Informational sector in India," *University-practice connect*.
- 8) R. C. Deshmukh, (2020), "The impact of COVID-19 on women", *Population Foundation of India*.



Affordable Housing Programme in the Context of Slum Free Smart City: Case of Vadodara

Dr. Joy Karmakar,

Lecturer, Department of Geography, Serampore College, Hooghly, West Bengal.

Abstract

There is a growing demand of affordable housing in urban areas in India. To meet the demand Pradhan Mantri Awas Yojana (PMAY) programme was launched by the union government in 2015. Likewise to develop infrastructure in the city, smart city mission was launched. There is an effort to converge both these project at city level. This paper made an attempt to analyze the affordable housing program in urban areas in India. Available data on various strategies adopted for construction of affordable houses shows that each of the strategy is not successfully implemented. In fact it is evident from the analysis that slum redevelopment projects are not implemented in cities where maximum number of slum population resides. In fact, introduction of slum free city idea and proposing affordable housing under Smart City Mission (SCM) creates inadvertent 'demolition drive' in the city. Case study of Vadodara city clearly demonstrates that idea of 'slum free city' displaced and evicted huge number people. Furthermore the rehabilitation process is delayed and sometimes occupants deprive basic facilities in rehabilitated area.

Keywords

Affordable housing, Slum free city, Displacement, Rehabilitation, Smart city

1.1 Introduction

Affordable Housing is one of the trendy expressions in the housing circles. Since the beginning of recent downturn in the real estate market, real estate developers have been announcing launch of Affordable Housing projects. This interest in private properties has swamped due to increased urbanization and growing family income in India. Indeed, India is among the top 10 price appreciated housing markets globally. Furthermore, the government has approved up to 100 percent Foreign Direct Investment (FDI) for projects to develop townships and settlements¹. There is a surge in private interest in the housing markets, powered by increased transparency and returns. This has been reported in the World Bank recent report on 'Doing Business 2020', where India was ranked 27 out of 190 countries for Construction Permits².

It is believed that real estate sector in India is expected to reach US\$ 1 trillion by 2030. By 2025, it will contribute 13 per cent to the nation's GDP. Likewise, the metropolitan population of India is anticipated to reach 525 million by 2025, up from an estimated 461 million in 2018 (IBEF, 2020). This will generate huge demand for affordable housing in urban areas of India. It is accepted that increasing income and business openings will trigger more demand of housing. However it is worthwhile to note that housing stock has increased from 2001 to 2011. But housing shortage is posing

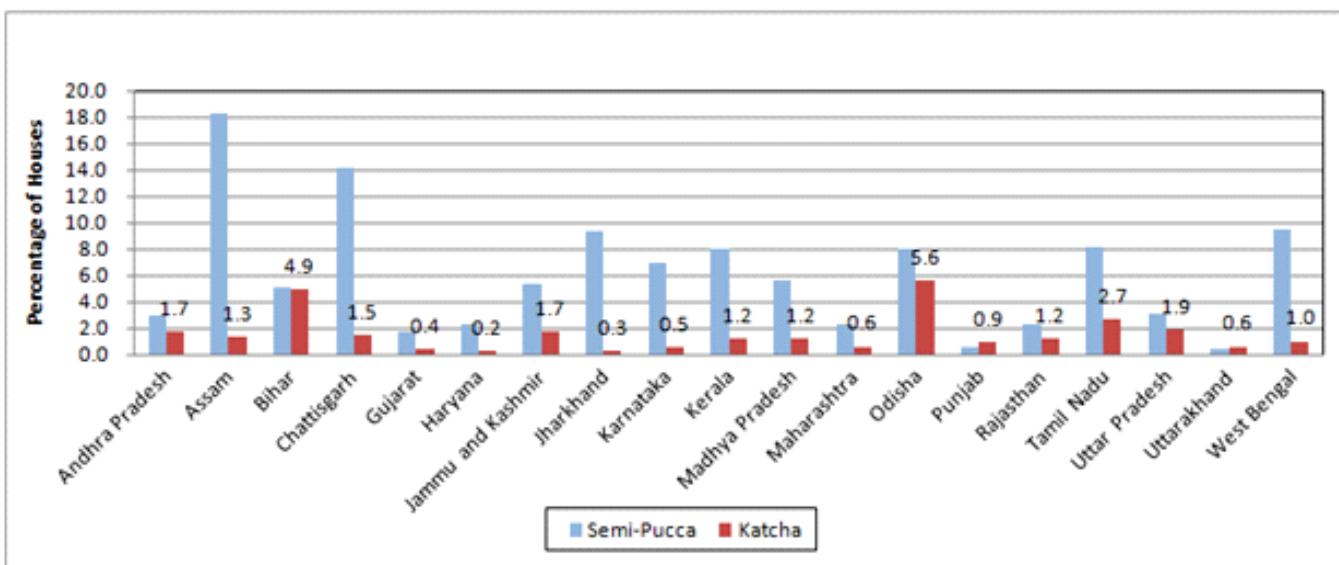
a challenge, since there is a mismatch between the people for whom the houses are being built and those who need them. As per old estimates that 95 percent of housing shortage falls between Economically Weaker Section (EWS) and Lower Income Group (LIG) (Government of India, 2014). Therefore need for affordable housing is essential for urban population. Following **Figure 1** shows the state wise distribution of katcha and semi-pucca house in urban India.

It is evident from the **Figure 1** that *kutch*a houses are still prevalent in some of the major states in India like Bihar, Odisha, Tamil Nadu, Andhra Pradesh and Uttar Pradesh. Likewise semi-*pucca* houses are also huge in number in urban areas in some of the major states like Assam, Chattishgarh, Jharkhand, West Bengal and Odisha. Therefore, demand of *pucca* house in affordable price in urban area is enormous.

The Ministry of Housing assessed a housing shortage of 18.78 million houses during the 12th plan period, with 99% in the Economically Weaker Section (EWS) and Lower Income Groups (LIG).

Overcoming the gap between the high demand for housing and the grave shortage in supply has been part of the national agenda in the recent time. Further, the country's total urban housing shortage is projected to be about 30 million by 2022. Housing that is affordable to working households and in closeness to their work environments is a crucial part of a locale's economic development. The report also highlights that nearly 1 million households are living in non-serviceable *kutch*a houses, while over half a million households are in homeless conditions. The Smart City Mission (SCM) provides an avenue to taking advantage of a bigger resource pool through facilitating convergence with other ongoing and planned schemes at the central and state level. Utilizing this opportunity, a few Smart City proposition have tended to the need for affordable housing and have included the affordable housing schemes for their respective improvement plans. Policy makers believed that Schemes such as these will cater development of the area as time goes on. Indeed this is true but I argued and showed that to build affordable housing in smart city several complexities developed and sometimes either it

Figure 1: Distribution of Urban Households Living in Semi-Pucca and Katcha House, 2012



Source: NSS 69th Round, 2012, table 28.4 (C)

leads to eviction and demolition of slum or pushing slum dwellers at the periphery of the city in the name of slum free city.

With this background the paper will focus on the Pradhan Mantri Awas Yojana (PMAY) housing for all in urban areas of India. Since, this housing programme has been converged with Smart City Mission (SCM). This paper will make an assessment of Pradhan Mantri Awas Yojana and its role in the smart city mission in particular slum free city. After the introductory section next section will throw light on PMAY in urban areas of different states. Thereafter, subsequent section will analyze the nature of convergence between affordable housing program and smart city mission in different cities in India. After analyzing nature of convergence of two programs, a case study of affordable housing in Vadodara city has discussed and elaborated various evidences of inadequacy of housing program. Data has been taken from ministry of housing and urban affairs, and apart from that newspaper reports and smart city proposal are also taken into consideration.

1.2 Affordable Housing under PMAY Urban - an Appraisal

India had numerous urban housing schemes for urban poor since independence (1947). Till 1960s, the focus was on house building, but most of such housing benefited Middle Income Group (MIG) rather than Lower Income Group (LIG) and Economically Weaker Section (EWS) households due to collusion of administration and political system. In the decade of 1970s, the policy threw light on providing 'sites and services' of housing. Thereafter in 1980s, the emphasis was made on 'upgradation or improvement' of housing units and services, which met little success due to its targeting of existing houses. During 1990s, the housing policy in India move away from 'direct provision of housing' towards 'enabling housing development'. (Nallathiga, 2019) In the start of the

21st century urban housing schemes include the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) under which two entries were Basic Services for the Urban Poor (BSUP) and Integrated Housing and Slum Development Program (IHSDP). The target of this mission was to make "financially gainful, effective, fair and responsive cities" (D'Suza, 2020). Rajiv Awas Yojana (RAY) was another program dispatched in 2011 for affordable housing and its aim was "Slum free India". The inspiration driving the program underscores the failure of the market and the public authority to secure the rights of the urban poor to a decent and dignified life. It is worthwhile to note here that after 2000, the successive governments gave incentives for home ownership (through mortgage tax relief), which promoted the role of private sector in housing development.

1.2.1 Strategies of Affordable Housing in Recent Times

While efforts to provide low-cost housing have been made for many years, the PMAY launched in 2015 provides a fresh impetus. The PMAY-Urbans (PMAY-U) subsumes all the previous urban housing schemes for urban poor and aims at 'Housing for All' to be achieved by the year 2022. The mission covers 4041 statutory towns as per census 2011 with focus on 500 Class I cities. The mission supports construction of houses up to 30 square meter carpet area with basic civic infrastructure. Under PMAY (Urban), as on 18th January, 2021, 109.2 lakh houses have been sanctioned out of which 70.4 lakh houses have been grounded for construction of which 41.3 lakh have been built to the beneficiaries under PMAY(U) since inception of the scheme in June, 2015 (Government of India, 2021). The program is implemented through four verticals which provide options to beneficiaries, ULBs and State Governments. The four components of the mission are In-situ Slum Redevelopment (ISSR)³, Credit-Linked Subsidy Scheme (CLSS)⁴, Beneficiary-led

³In-situ slum redevelopment utilizing land as an asset with private cooperation for giving houses to qualified slum dwellers is the main significant part of the "Housing for All" mission. This approach plans to use the bolted capability of land under slums to give houses to the qualified slums inhabitants carrying them into the formal urban settlement.

⁴Credit linked subsidy to urban poor (EWS/LIG) for securing, development of house. Beneficiaries of Economically Weaker area (EWS) and Low Income Group (LIG) looking for housing credits from Banks, Housing Finance Companies and other such establishments would be qualified for a premium appropriation at the pace of 6.5 % for tenure of 15 years or during tenure of loan whichever is lower.

construction (BLC)⁵ and Affordable Housing in Partnership (AHP)⁶. Following **Figure 2** shows intra state comparison of grounded house under various strategies. It is worthwhile to note here that the program implemented in number of urban areas varies across the state such as, in case of Jharkhand the program is implemented only in 38 urban local bodies (ULB) and in Tamil Nadu it is implemented in 666 urban areas. It is evident from the **Figure 2** that maximum number of houses grounded under BLC strategy in most of the states. Assam, Bihar, Jharkhand, Kerala, Odisha, Tamil Nadu, West Bengal and Madhya Pradesh are some of the states where more than 60 percent of total house grounded are through BLC strategy. In Telangana no house grounded under BLC strategy. In Maharashtra, Rajasthan and Gujarat less than 8 percent of the total grounded houses are constructed through BLC strategy. In Telangana and Andhra Pradesh more than 70 percent of the total houses are grounded under AHP strategy. Likewise in Karnataka (37.72) and Chattishgarh (22.85) adequate number of houses grounded under AHP strategy. In Kerala, Assam, Bihar, Haryana and Jammu and Kashmir no

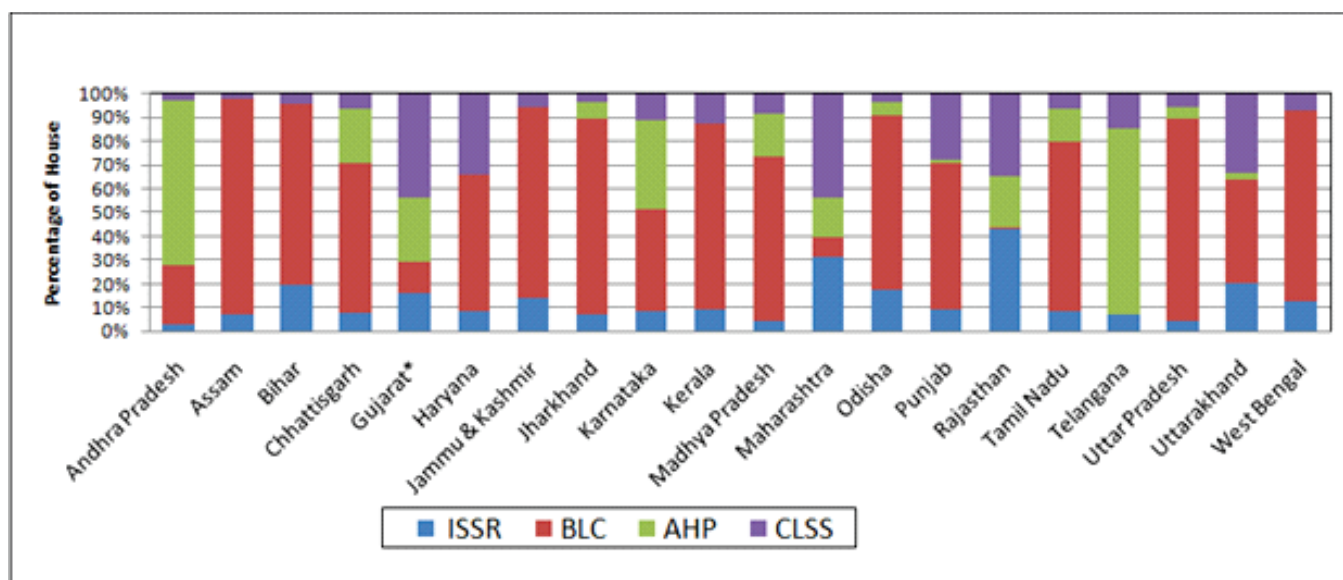
house grounded under AHP strategy, in other words it was not all a popular strategy for house construction.

On the other hand Gujarat, Haryana, Rajasthan and Maharashtra, constructed more than 33 percent houses under CLSS strategy. In Assam, Bihar, Jharkhand and West Bengal less than 8 percent of total houses are constructed under CLSS strategy. Likewise in Odisha, Maharashtra, Bihar and Uttarakhand more than 17 of the total houses are grounded under ISSR strategy. In Andhra Pradesh, Uttar Pradesh, Telengana, and Madhya Pradesh less than 6 percent of the total houses are grounded under ISSR strategy. State wise details of figure are shown in the Annexure **Table 1**.

1.2.2 Funding and Beneficiary of the Programme

It is estimated that total dwelling unit cost is Rs. 3.68 lakhs (Rs. 4.41 Lakhs for Hilly Areas). Ministry of Housing and Urban Affairs (MoHUA), Government of India is providing Rs.1.5 lakhs for

Figure 2: Intra-State Comparison of Houses Grounded Under PMAY Urban from 2014-2019



Source: Ministry of Housing and Urban Affairs, 2020, *only Gujarat housing data updated till 2020 Note: ISSR: In-situ Slum Redevelopment, BLC: Beneficiary Led Construction, AHP: Affordable Housing in partnership, CLSS: Credit Linked Subsidy Scheme

⁵BLC is to help individual qualified families belonging to EWS classifications to either develop new houses or upgrade existing houses all alone to cover the beneficiaries who can't exploit different segments of the mission. Such families may avail the central assistance of Rs. 1.5 lakh for development of new houses under the mission.
⁶Fourth segment is to start affordable housing projects in their own ability or in association with the private sector, are qualified for Central help provided such activities fulfilled certain specified rules. All the more explicitly, a housing project, in which 35 percent of the housing stock is reserved for the EWS

BLC and AHP. Beneficiaries of Economically Weaker section (EWS) and Low Income Group (LIG) seeking housing loans from Banks, Housing Finance Companies and other such institutions would be eligible for an interest subsidy at the rate of 6.5 percent for tenure of 15 years or during tenure of loan whichever is lower. The credit linked subsidy would be available only for loan amounts

up to Rs 6 lakhs and additional loans beyond Rs. 6 lakhs, if any, will be at nonsubsidized rate. Central Assistance at the rate of Rs. 1.5 lakhs per EWS house would be available for all EWS houses in such projects (Government of India, 2015). Policy makers expect that such measure would not only benefit the urban poor but it will also accelerate the housing market at large in the urban areas.

Table 1: Project Beneficiary under In-situ Slum Redevelopment (ISSR) Strategy in PMAY U

States	Per Project Beneficiary 2016-17	Per Project Beneficiary 2017-18
Andhra Pradesh	7.95	1.23
Assam	2.13	1.11
Bihar	0.38	NA
Chhattisgarh	2.08	2.15
Gujarat	1.33	2.22
Haryana	2.55	3.02
Himachal Pradesh	4.40	NA
Jammu & Kashmir	1.02	1.00
Jharkhand	1.14	0.71
Karnataka	0.71	2.32
Kerala	14.00	0.32
Madhya Pradesh	4.79	1.16
Maharashtra	2.33	2.06
Odisha	0.68	0.45
Punjab	8.94	8.50
Rajasthan	0.79	NA
Tamil Nādu	2.48	4.80
Telangana	0.50	4.86
Uttar Pradesh	1.36	1.16
Uttarakhand	0.75	3.36
West Bengal	1.18	1.04

Source: Ministry of Housing and Urban Affairs, 2019, NA: Data Not Available

However, per project beneficiary under PMAY (U) is not uniform across the states. Under ISSR strategy per project beneficiary in Kerala (14) is highest in number while it remains 1 in many states includes Uttarakhand, Telengana, Odisha, Bihar, Jharkhand, Jammu and Kashmir and Rajasthan. In Andhra Pradesh, Madhya Pradesh, Gujarat and Punjab per project beneficiary are more than 2. Therefore it is evident from **Table 1** that the implementation of the ISSR strategy is so poor that the project beneficiary are even less than one in states like Odisha, Bihar, and Jharkhand. One of the prime reasons behind the failure of the ISSR strategy is lack of land ownership by urban slum households (Kanwar, 2019). Furthermore, under the ISSR strategy, state governments are considering only notified slums to be redeveloped. According to the Census of India, out of the total slums households, 36.1 percent are notified. Therefore majority of the slums are not comes under the purview of the PMAY (U) programme.

Likewise, under AHP strategy maximum houses proposed and grounded⁷ in Uttarakhand, Rajasthan, Chhattisgarh, Tamil Nadu and Gujarat. It is also clear from the **Table 2** that Telangana, Andhra Pradesh, Odisha and Maharashtra are poor performer with respect to proposed and grounded house under AHP strategy.

Moreover, it is also evident from **Table 2** that in Karnataka, none of the proposed houses are grounded under AHP strategy. Scholars noted that affordable housing projects under the scheme seem to be restricted to suburbs and satellite towns far from the city. Apparently affordable housing activities under AHP strategy are developing on the edges of the city, far away from individuals' working place. If location is not taken into account, there will be not many takers for these houses as probably the significant components affecting individuals' choice to buy a house depend on travel time to working environment and affordability (Kanwar, 2019).

Table 2: State-wise Comparison of House Grounded under AHP strategy in PMAY U

States	Project proposal considered	Number of houses per projects proposed	Number of Houses per Project grounded	Percentage of grounded houses
Andhra Pradesh	78	1539.82	78.67	5.11
Chhattisgarh	39	668.87	365.10	54.58
Gujarat	68	913.60	499.62	54.69
Karnataka	53	690.94	0.00	0.00
Madhya Pradesh	53	1893.70	729.43	38.52
Maharashtra	46	2377.11	18.78	0.79
Orissa	04	1387.00	NA	NA
Rajasthan	28	517.39	293.36	56.70
Tamil Nādu	27	745.04	289.19	38.81
Telangana	144	558.90	33.82	6.05
Uttarakhand	02	232.00	232.00	100.00

Source: Ministry of Housing and Urban Affairs, 2019

Table 3: State-wise Comparison of House Grounded under BLC Strategy in PMAY U

States	Total House grounded	Total Fund Rs. in crores	Fund Disbursement Rs. per grounded house
Andhra Pradesh	174606	598.02	34249.68
Assam	45841	335.2	73122.31
Bihar	111692	671.98	60163.66
Chhattisgarh	108978	338.75	31084.26
Gujarat	63597	91.56	14396.91
Haryana	25310	112.67	44516.00
Jharkhand	107760	686.58	63713.81
Karnataka	140322	357.24	25458.59
Kerala	75805	326.19	43030.14
Madhya Pradesh	382659	2137.79	55866.71
Maharashtra	37539	82.74	22041.08
Orissa	69545	265.94	38239.99
Punjab	27318	123.22	45105.79
Rajasthan	201	1.08	53731.34
Tamil Nādu	395671	1882.52	47577.91
Uttar Pradesh	765420	1494.06	19519.48
Uttarakhand	8493	78.51	92440.83
West Bengal	232822	1479.15	63531.37

Source: Ministry of Housing and Urban Affairs, 2018

It is already noted that maximum number of houses grounded under BLC strategy. In West Bengal, Uttar Pradesh, Tamil Nadu, Madhya Pradesh more than Rs.1200 crores is being spent and more than 2

lakh houses grounded in each of the state. Rajasthan is only state where least number (only 201) of houses grounded under BLC strategy.

Table 4: Comparison of Grounded House under CLSS Strategy in PMAY U

State	Total Beneficiary	Total Subsidy (Rs) (Cr)	Amount received by per Beneficiary	Houses Grounded #	Number of Beneficiary per House
Andhra Pradesh	14134	306.69	216987.41	1057	13
Assam	783	15.74	201021.71	165	5
Bihar	4960	107.89	217520.16	318	16
Chhattisgarh	9070	167.8	185005.51	1712	5
Delhi (UT)	14111	319.07	226114.38	1436	10
Gujarat	182443	4303.08	235858.87	30325	6
Haryana	12473	261.78	209877.34	1188	10
Jammu & Kashmir	476	8.29	174159.66	126	4
Jharkhand	4002	84.15	210269.87	169	24
Karnataka	29746	639.87	215111.28	2965	10
Kerala	9882	198.89	201264.93	1223	8
Madhya Pradesh	37669	824.01	218750.17	5523	7
Maharashtra	163528	3835.34	234537.20	25046	7
Odisha	2838	52.94	186539.82	384	7
Punjab	9762	214.45	219678.34	896	11
Rajasthan	29196	580.23	198736.13	3264	9
Tamil Nadu	28896	606.83	210004.84	3901	7
Telangana	22080	489.43	221662.14	1378	16
Uttar Pradesh	44551	970.69	217882.88	4079	11
Uttarakhand	5598	118.15	211057.52	704	8
West Bengal	17961	404.21	225048.72	1872	10

Source: Ministry of Housing and Urban Affairs, 2019, Note:# Data is up to 2018

It is worthwhile to note that under CLSS strategy maximum number of beneficiary and grounded house are from Gujarat and Maharashtra. However, more than 10 beneficiaries per grounded house are from Jharkhand, Bihar, Telangana, UP, Rajasthan, Punjab and Andhra Pradesh. This means that these states successfully implemented this strategy unlike other strategy in the PMAY. Jammu and Kashmir received lowest amount of subsidy followed by Assam and Odisha. On the other hand,

highest amount of subsidy received by Gujarat and Maharashtra.

Two hypotheses have been formulated to understand whether there is a difference among states with respect to house grounded under the in situ slum redevelopment strategy. In the first case, the null hypothesis is that there is no difference among states with respect to houses grounded under ISSR strategy. Alternative hypothesis is that

there is difference among the states in terms of houses grounded under ISSR strategy. More specifically alternative hypothesis indicate that states which have more slum houses are grounding more houses under PMAY in urban area. In the second case the null hypothesis is that there is no difference of grounding houses under ISSR among the states which has more dilapidated slum house and less dilapidated slum house. Alternative hypothesis is that there is a difference among the states in terms grounding house under ISSR. More specifically it suggests that if the state has more dilapidated house, the state will ground more house under ISSR strategy.

It is evident from the **Table 5** that in both the cases null hypothesis is accepted. It suggests that states which have more slum house and dilapidated slum house did not build more house under ISSR strategy. Alternatively, it indicates that the States have been failed to prioritize the construction of affordable housing under ISSR strategy. This suggests that part of the PMAY U objectives is not full filled.

1.3 Affordable Housing and Smart City Mission- Is it a Convergence or Divergence?

Smart City Mission (SCM) in India was announced in the budget speech of July 2014. Total 100 cities

have been selected based on a competitive proposal⁸. So many cities proposed affordable housing project for EWS and LIG under area based development strategy. However they remain silent on the number of EWS/LIG homes demolished and families evicted under various scheme. In fact, several reports shows that there is a mismatch between number of houses grounded and number of houses demolished and families evicted (India Today, 2016). In spite of raising the issue of housing for EWS/LIG in their recommendations, none of the urban areas have perceived housing as a human right to guarantee its sufficiency. Instead, most of the Smart City Proposals lay spotlight on issues identified with 'slum' upgrading and rehabilitation, re-housing, providing 'affordable and inclusive housing,' ensuring 'slum-free' cities under the plan of housing for all 2022. **Figure 3** shows the expenditure with respect to housing in smart cities.

It is evident from the **Figure 3** that smart cities affordable housing projects are mainly focused on slum improvement, rehabilitation and redevelopment. Maximum amount of rupees spent for slum redevelopment followed by slum rehabilitation projects. It is noteworthy that in some of the smart cities affordable housing projects are associated with idea of “slum free” cities⁹. However in spite of perceiving that a large

Table 5: Hypothesis Testing

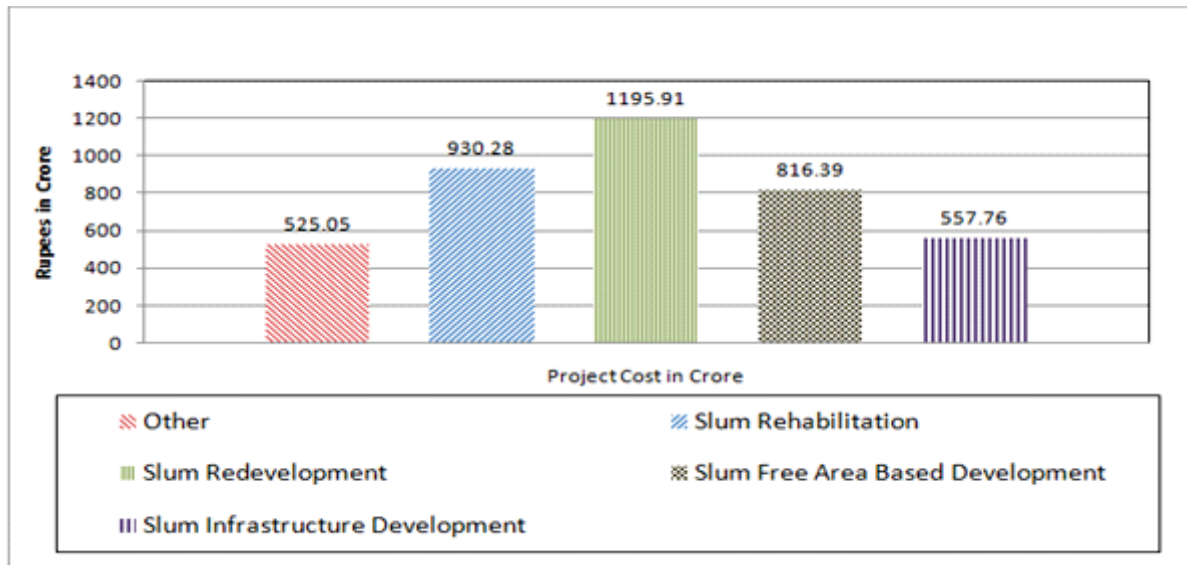
Statistical Measure	Proportion of Slum House	Dilapidated Slum House
Variance	150	168
Chi square	0.107	0.292
Z statistics	0.327	-0.540
H statistics	41**	55*
Prob > z	0.744	0.582

*5 percent level of significance, tabulated value 66, **5 percent level of significance, tabulated value 70

⁸Of the 99 selected cities, 70 are classified as 'Class I' cities (with a population of over 100,000) by definition of the Census of India, nine cities have a population below 100,000, and 20 cities are 'million plus' urban agglomerations. Only nine cities have been selected from the seven north-eastern states of the country.

⁹The proposals of Agra, Ahmadabad, Aurangabad, Chandigarh, Coimbatore, Davanagere, Dehradun, Erode, Jhansi, Muzaffarpur, Namchi, Puducherry, Pune, Raipur, Rajkot, Salem, Satna, Thiruvananthapuram, Thoothukudi, Tirupati, Tiruppur, Trichy, Tumkur, Vadodara, and Warangal have stated the goal of making their cities 'slum-free.'

Figure 3: Expenditure for Slum Projects Under SCM in Different Cities in India



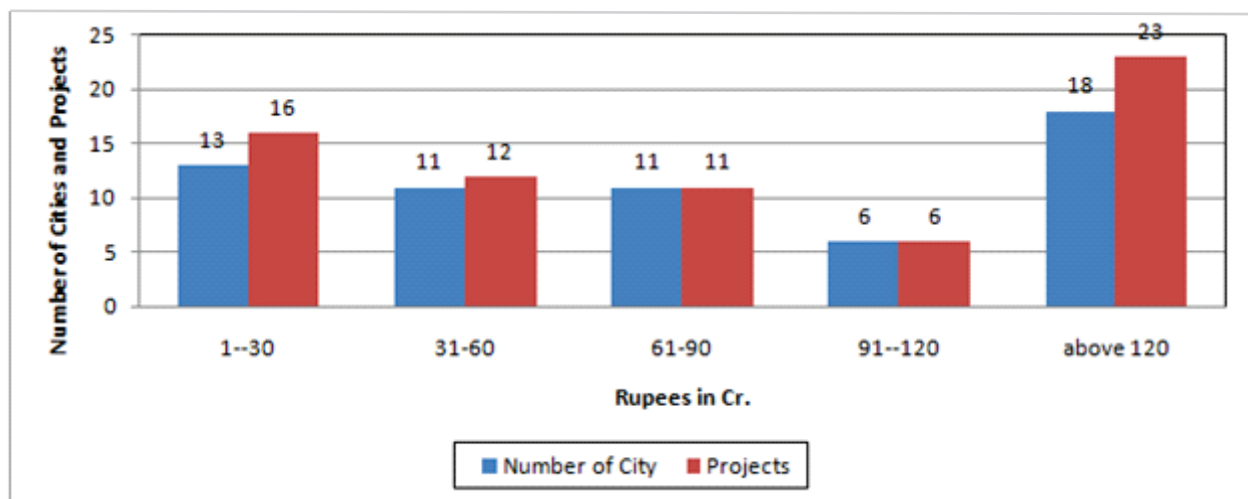
Source: Ministry of Housing and Urban Affairs, 2019

percentage of the city populace lives in underserved and deficient settlements, none of the shortlisted cities have embraced a human rights approach to deal with housing or included safeguards to guarantee that the privilege to housing won't be violated during the usage of 'smart city' projects. The critics and policy analyst believed that the inability to recognize housing as a human right and the shortfall of a 'human right to

adequate housing' system in Smart City Proposition is probably going to promote the pattern to forcefully move low-income settlements to city peripheries under the guise of giving permanent housing.

While looking at **Figure 4** it is also evident that affordable housing projects cost varies in different smart cities. Out of 60 smart cities 13 cities spent

Figure 4: Distribution of Housing Project Cost under SCM



Source: Ministry of Housing and Urban Affairs, 2019

only 30 crore rupees while 18 cities spent more than 100 crore rupees for affordable housing project. It also shows that each smart city has implemented at least one affordable housing project with special focus on slum house construction. Even after the investment of huge amount of money on slums for affordable house, it has been criticized for so many different reasons. The affected populace has first to meet a few standards to demonstrate 'qualification,' including through the provision of documents and compliance. The ones who don't meet these criteria and can't bear to pay required sums are not given alternative housing or different advantages and subsequently remain destitute. The ones that figure out how to meet all requirements for 'qualification' are for the most part resettled in locales situated on city peripheries. It has been reported that this nature of resettlement on city edges, brings about loss of occupations, wellbeing, education, and security of the affected families as well as it accelerates their impoverishment and marginalization (Housing and Land Rights Network, 2014).

Therefore it is apparent from the above analysis that both the programs try to converge through housing but it fails to incorporate economically poor and lower income non slum population. In fact, Smart city mission's affordable housing projects also discriminates slum population due to lack of land ownership by the slum dwellers. Moreover there is a tendency to create slum free city and that often promote evictions and demolitions of low-income settlements under the guise of creating 'cities without slums.' Scholars and experts noted that the vision of "slum free city" has not always been interpreted as socially progressive. Rather it promoted evictions and demolitions of low income settlements under the guise of making cities without slum. Moreover, it reveals the paradox of inclusive growth to govern the megacity. It transforms the 'complex ambiguity of informal property regimes into globally legible values' (Roy, 2013). Though, the smart city guidelines do not use the term 'slum free' as integral to their housing

policy but many smart city uses the term 'slum free' in their proposal. Therefore, it is highlighted in literature that this vision of 'slum free' city in many countries undermined the rights of poor in the city (Dupont, 2016). It is also reported that the smart cities agenda could facilitate private takeover of the public space and common lands and common lands (The Conversation, 2016). So, seemingly converge affordable housing program and smart city mission presents a complex dimension of housing, human rights and development.

1.4 Initiative of Slum Free City under Smart City Mission: Case of Vadodara, Gujarat

This section will elaborate the idea of 'slum free city' in the context of Vadodara city in Gujarat. It is argued that slum free city makes a shift from 'slum evictions and demolitions to the integration of the poor into market rule'. Since slum free cities tries to implement spatially inclusive growth it encounters two conceptual ambiguities includes the epistemology of poverty¹⁰ and the propriety of property¹¹ (Roy, 2013).

So, I try to explore the case of Vadodara city's smart city project and its complexities with respect to affordable housing in the slum. Vadodara is the third biggest city in the state of Gujarat, with an area of 149 sq km and a population of more than 16 lakh situated between Ahmadabad and Surat. After independence, the city has experienced rapid population growth. The city of Vadodara has 336 slum pockets with a population of around 1.07 lakhs, which approximately amounts to 6.42 percent of the total population. The slums lack facilities of proper drainage, roads and sanitation. Vadodara Urban Development Authority (VUDA), which is the planning agency, covers an area 714.56 square kilometers.

While looking at the **Table 6** it is apparent that city has almost 4 percent slum house and in which 2.32 percent of house are in dilapidated condition. It is

¹⁰Influenced by the Soto's idea of 'mystery of capital', Slum free city sees poverty as the absence of 'the process to represent property and create capital'. It in this way demands a politics of perceivability and acknowledgment, that 'the poor man' should have 'his worth represented on paper'. As is currently notable and much talked about, de Soto claims that such types of portrayal will permit the poor to change over 'dead capital' into 'fluid capital', consequently changing over ghettos into resources.

¹¹Slum-free Cities seeks to transform slum land into urban assets.

also remarkable that 89.23 percent of the total occupied slum houses are used for residence purpose and rest of the occupied slum house used for non-residential uses inclusive of factories, workshop, school, health center and place of worship, hotel and shop etc. only 18.14 percent slum house has concrete roof top which indicates that more than 80 percent slum houses are either kutchha or semi pucca. This provides a clear ground

for affordable housing in the slums of the city. The following **Map 1** shows the distribution of slums in the Vadodara city. Slums in the city are located along the railway line, river and main highway.

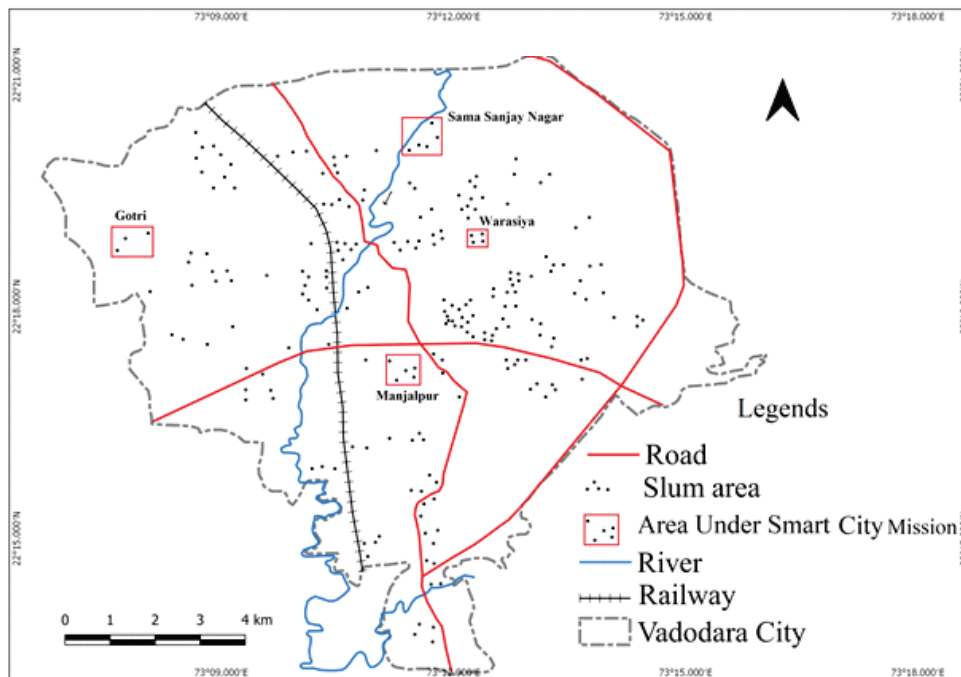
Under smart city mission, total eight 'slum free projects' submitted as well as implemented. These projects spread across the city. For the construction of affordable houses in the slums total Rs.693.05

Table 6: Profile of Vadodara Municipal Corporation (VMC), 2011

Variables	Total	Percentage
Total House	589043	100
Slum House	22982	3.90
Total Population	1670876	100
Slum Population	107289	6.42
Total Household	377110	100
Slum Household	18736	4.96

Source: Census of India, 2011

Map 1: Distribution of Slums in Vadodara Municipal Corporation



Source: Compiled and Reproduced by author from city development plan 2012

Table 7: Areas under Slum Free Project in Vadodara Municipal Corporation

Area	Estimated Cost (Rs) (Cr)	Final Cost in (Rs) (Cr)	Status of the Project
Manjalpur Bajaniyawas	24.76	24.8	Work Completed
Danteswar Sainath Nagar	10.02	10	Work Completed
Sama Sanjaynagar	71.87	71.9	Work Completed
Ekta Nagar	126.15	126.2	Work Order Issued
Sahakar Nagar	173.25	173.3	Work Order Issued
Odd Nagar	9.17	9.2	Work Order Issued
Sanjay Nagar Warasiya	231.07	231.1	Work Order Issued
Slum Free Area Gotri	46.76	46.8	Work Order Issued

Source: Ministry of Housing & Urban Affairs, 2019

crores spent for 8 projects. The project cost ranges from Rs.10 crores to Rs.231 crores. The average cost per project is Rs.86.66 crores.

It was reported that Vadodara was listed Modi's flagship Smart Cities Mission (SCM) immediately after Modi became Prime Minister. Thereafter, several newspapers reported that huge 'demolition drive in Vadodara wiping out marginal population' of the city. In June 2016, 1500 houses of Ramdev Nagar slum were demolished. Reports noted that it was undertaken without the complete consent of majority of occupants. The Ramdevnagar slum was located in Gotri locality. The slum had majority population comprising of scheduled castes. The occupants were shifted to Sayajipura, 16 km away from Ramdevnagar. Occupants pointed out that specific of the room has been changed and made it smaller to manage cost in the rehabilitated area (Krishnam, 2019). In May 2016, 360 houses were demolished in Sulemani Chal located in south-east Vadodara. Moreover, only 255 families have been rehabilitated so far (Krishnam, 2019). Likewise, on July 2017, 1428 houses demolished in Sahkarnagar slum of Tandalja, a Muslim dominated area of Vadodara. Occupants reported that they paid 6000

rupees per month to landlords but government paid only 2000 rupees share for their rent. Occupants were shifted to Soma Talav which is 8 km away from Pani Gate and from where it costs around Rs 100 to travel to the city. Similar experienced shared by the occupants of Kisanwadi slums where 160 slums demolished and they were moved to the houses constructed under Khodiyar Nagar slum redevelopment scheme that do not have electric supply or water connection (Slum dwellers in Vadodara, 2016).

Due to the delay in the allotment of houses, the residents of the Sahakarnagar protested in November, 2018. In May 2017, slum dwellers were agreed to vacate their house in return for better housing at the same location. In July 2017, 1,428 hutments and 75 shops were demolished by Vadodara Municipal Corporation (VMC). Authority agreed to make an in-situ slum rehabilitation project in the area under PMAY. It was proposed that VMC would construct 2637 houses for the urban poor. Moreover, it was planned to be developed in a public-private partnership for residential and commercial purposes. However, the task was slowed down as a lake, with a surface area

of 4,000 square meter existed at the site. The Gujarat High Court orders urban local bodies (ULB) to protect water bodies. Accordingly, no development has occurred on the site. The affected individuals, in the meantime, have set up in transitory shelters and await rehabilitation as assured (Patil, 2020). Such slum improvement and rehabilitation process can be seen in other cities in India. In fact such rehabilitation processes are often funded by development banks. However these banks have strict guideline regarding slum improvement and rehabilitation. Recently such resettlement and rehabilitation process can be seen in the Kolkata financed by Asian Development Bank (ADB) under Kolkata Environmental Improvement Project (KEIP). Process of rehabilitation in this case was smooth because of strict guideline¹² and policy by the bank (Karmakar, 2019). Therefore, smart city mission need to formulate and follow such strict guideline for rehabilitation and livelihood protection of the urban poor while grounding affordable housing for them.

Conclusion

This paper attempted to analyze the implementation of PMAY in various states of India. Moreover, the paper also explores smart city mission and its convergence with affordable housing project. The four strategies for the implementation of affordable housing include In-situ Slum Redevelopment (ISSR), Credit-Linked Subsidy Scheme (CLSS), Beneficiary-Led Construction (BLC) and Affordable Housing in Partnership (AHP). The analysis of the data shows that most of the states prefer beneficiary led construction of affordable housing. It is also worthwhile to point out that In-situ Slum Redevelopment (ISSR) strategy is not successfully implemented where there is maximum number of slum dwellers reside. The reason behind the non implementation of the in-situ slum redevelopment program is due to the lack of land ownership by the slum dwellers. Though there is an effort to converge the affordable housing project with the smart city mission but data shows that smart city mission through 'slum free city' project only emphasize the slum dwellers and rest of the urban poor neglected in the program. Case of Vadodara city clearly shows the shortcomings of resettlement and rehabilitation plan while implementing the in-situ slum redevelopment programme.

References

1. Dharamshala's 'Smart City' 'inhuman' eviction of 1500 homeless slum dwelling migrant workers,' (2016, August, 1) *India Today*, Available at: <http://www.indialivetoday.com/dharamshalas-smart-city-inhuman- eviction-homeless-slum-dwellers/16942.html>
2. D'Souza, R. (2019) *Housing Poverty in Urban India: The Failures of Past and Current Strategies and the Need for a New Blueprint*, ORF's series, 'Urbanization and its Discontents', New Delhi
3. Dupont, V., Jordhus-Lier, D. Sutherland, C., Braathen, E. (ed.) (2016) *Politics of Slums in the Global South*, Routledge, London
4. Government of India (2007) *National urban housing and habitat policy 2007*, Ministry of Housing and Urban Poverty Alleviation, New Delhi

¹²Resettlement plan noted that all relocation sites has to be within 2.5 Km distance of the original settlements so that affected persons could continue to remain near the source of livelihoods.

5. *Government of India (2014) Report on trend and progress of housing in India, National Housing Bank, New Delhi*
6. *Government of India (2015) Pradhan Mantri Awas Yojana: Housing for All (Urban), Ministry of Housing and Urban Poverty Alleviation, New Delhi*
7. *Government of India (2021) Economic Survey, Ministry of finance, Department of Economic Affairs, Government of India, New Delhi*
8. *IBEF (2020, August) Real Estate, India Brand Equity Foundation, New Delhi*
9. *IBEF (2012) Affordable Housing in India, India Brand Equity Foundation, New Delhi*
10. *Kanwar, S (May 2019) How the PM's Affordable Housing Scheme Went From Promising to Dysfunctional, The Wire, Available at <https://thewire.in/urban/housing-urban-policy-scheme>*
11. *Karmakar, J. (2019) Redevelopment, Transformation of City and Displacement: Case of Kolkata, Local Government Quarterly, 89 (1)*
12. *King, A. (2004) Spaces of Global Culture: architecture, urbanism, identity, New York:*
13. *Nallathiga, R. (2019) Affordable Housing through PPPs: The Case of Shukhobrishti Model, Conference paper of Proceedings of 2nd Industry Academia Conference on Construction Management*
14. *Patil, A. (November, 2020) Residents of Vadodara in Gujarat awaits rehabilitation after demolition of house, <https://www.landconflictwatch.org/conflicts/residents-of-vadodara-in-gujarat-await-rehabilitation-after-demolition-of-houses>*
15. *Slum dwellers in Vadodara move in their new homes — without power and water (2016, May), Indian Express, Retrieved from <https://indianexpress.com/article/cities/ahmedabad/slum-dwellers-in-vadodara-move-in-their-new-homes-without-power-and-water-2797579/>*



Annexure

Table 1: Intra-State Comparison of Houses Grounded Under PMAY Urban from 2014-2019

States	Cities Participated	Figures in Percentage			
		ISSR	BLC	AHP	CLSS
Andhra Pradesh	84	2.69	25.31	69.44	2.55
Assam	97	7.23	90.99	NA	1.78
Bihar	140	19.36	76.71	NA	3.94
Chhattisgarh	59	7.87	63.06	22.85	6.22
Gujarat*	171	16.12	12.88	27.22	43.78
Haryana	80	8.19	57.82	NA	33.99
Jammu & Kashmir	80	13.55	81.16	NA	5.29
Jharkhand	38	6.94	82.77	6.66	3.64
Karnataka	271	8.61	42.75	37.72	10.93
Kerala	93	8.99	78.83	NA	12.18
Madhya Pradesh	379	4.34	69.58	17.54	8.55
Maharashtra	142	31.33	8.35	16.84	43.47
Odisha	112	17.47	73.51	5.56	3.45
Punjab	163	8.75	62.15	1.30	27.80
Rajasthan	183	43.28	0.18	21.60	34.94
Tamil Nadu	666	8.26	71.94	13.38	6.43
Telangana	68	6.97	0.00	78.21	14.82
Uttar Pradesh	628	4.08	85.68	4.34	5.90
Uttarakhand	89	20.24	43.99	2.40	33.37
West Bengal	125	12.59	80.20	NA	7.21

Source: Ministry of Housing and Urban Affairs, 2020,

* only Gujarat housing data updated till 2020 Note: ISSR: In-situ Slum Redevelopment, BLC: Beneficiary Led Construction, AHP: Affordable Housing in partnership, CLSS: Credit Linked Subsidy Scheme

Annexure

Table 2: Inter-State Comparison of Houses Grounded Under PMAY Urban from 2014-2019

States	Figures in Percentage			
	ISSR	BLC	AHP	CLSS
Andhra Pradesh	3.30	6.25	38.54	2.32
Assam	0.65	1.64	NA	0.12
Bihar	5.00	4.00	NA	0.76
Chhattisgarh	2.41	3.90	3.18	1.42
Gujarat*	14.11	2.28	10.81	28.51
Haryana	0.64	0.91	NA	1.96
Jammu & Kashmir	0.60	0.73	NA	0.18
Jharkhand	1.60	3.86	0.70	0.62
Karnataka	5.01	5.02	9.96	4.73
Kerala	1.53	2.71	NA	1.54
Madhya Pradesh	4.23	13.70	7.76	6.20
Maharashtra	24.97	1.34	6.09	25.76
Odisha	2.93	2.49	0.42	0.43
Punjab	0.68	0.98	0.05	1.61
Rajasthan	8.38	0.01	1.90	5.03
Tamil Nadu	8.05	14.16	5.92	4.66
Telangana	2.26	0.00	11.52	3.58
Uttar Pradesh	6.46	27.40	3.12	6.95
Uttarakhand	0.69	0.30	0.04	0.85
West Bengal	6.48	8.33	NA	2.76
Total	563822	2794009	1242954	758232

Source: Ministry of Housing and Urban Affairs, 2020, * only Gujarat housing data updated till 2020

Note: ISSR: In-situ Slum Redevelopment, BLC: Beneficiary Led Construction, AHP: Affordable Housing in partnership, CLSS: Credit Linked Subsidy Scheme

Critical Assessment of Public Hygiene in COVID-19: A Case Study of Women's Public Toilet in Aligarh City

Ms. Nalini Bhattar & Mr. Harshit Agrawal,

Postgraduates, Centre for Women's Studies, Aligarh Muslim University, Aligarh, Uttar Pradesh.

Introduction

In 2010, through resolution 64/292, the UN recognised water and sanitation as human rights. It also stated that they are essential to the realisation of all human rights. The Sustainable Development Goals (SDGs), agreed by 193 countries in 2015, include a target to achieve universal access to adequate and equitable sanitation and hygiene for all by 2030 (target-6), with special attention to the needs of women and girls and those in vulnerable situations (target- 6.2). As per the definition of the World Health Organisation (WHO) Sanitation generally refers to the provision of facilities and services for the safe disposal of human urine and faeces. The word 'sanitation' also refers to the maintenance of hygienic conditions, through services such as garbage collection and wastewater disposal. While Hygiene as per WHO refers to conditions and practices that help to maintain health and prevent the spread of diseases.

Accessibility to clean water, sanitation and hygiene plays an essential role in prevention of communicable diseases. During the coronavirus pandemic sanitation and hygiene becomes the most important tool for governments and communities to protect themselves. Effective management of WASH services helped both during the waves of the pandemic and its recovery period. Investing in core public health care, including hygiene and sanitation services can mitigate the impact of disease outbreaks on community wellbeing and

livelihood. However, women and girls continue to suffer disproportionately from inadequate sanitation, and often cannot use a toilet when and where they need.

With the outbreak of COVID-19, cleanliness practices and habits changed all over the world. From washing hands at regular intervals to sanitising ourselves whenever going in public or coming back to home to wearing masks. During lockdown period/s, proper procedure of sanitisation and hygiene were followed but public toilets suffered under government negligence. State apathy towards the condition of public toilets in Aligarh city harms marginalised people especially women.

Lack of toilet facility displays state's apathy towards women's physiological and medical problems arising from holding urine for long hours, fear of gender-based violence, pressure on women to maintain modesty and personal dignity. Failing to plan, design or manage public toilets to ensure they are female-friendly and accessible to all users, restricts not only the movement of women and girls, but also of older people, transgender persons and people with disabilities, and limits their ability to participate in public life.

Despite the large-scale prevalence of the problem and a general awareness of its consequences, little time and effort have been allocated to a systematic study on women related sanitation issues. Therefore, there is a need to analyse women's right

to access toilet both in public and private setting from a feminist perspective which would allow them to realise equal citizenship rights. The objective of this study is to analyze the distribution of public toilets for women in Aligarh city and to understand how access to safe and clean public toilets has an impact on women's mobility. The research also aims to highlight, local government neglect of public toilets during pandemic.

Methodology

This study was conducted in the Aligarh city which is a municipal corporation within the district of Aligarh. District of Aligarh is divided among 12 municipal bodies among which the city of Aligarh is the largest. Population of Aligarh city is 6.67 lakh (Census, 2011). This study is an assessment of the conditions of public toilets in Aligarh city, with a special emphasis on the women's public toilet. Two different approaches are adopted for the collection of data, observation methods and personal interviews. Observation method is used to assess the distribution of public toilets in various parts of the city. Interviews with open-ended questions are used to understand the experience of people and the problems they faced while using public toilets.

Observations and Findings

This study was conducted from 5th March 2021 to 25th March 2021 in different localities of Aligarh city. In observations and findings, a total of 35 people were interviewed, out of which 5 were male respondents and 30 were female respondents, to understand their experiences while using a public toilet in Aligarh city. Interviewees included both men and women from different age groups and socio-economic backgrounds to comprehensively understand the gender-based discriminations and difficulties while using public toilets.

The findings of the study are listed under different themes- location, safety and security, infrastructural problems, accessibility and

visibility and affordability. There were many reasons cited by respondents for not using the public toilets including dirtiness, inappropriate location, presence of men near the entrance, and having male caretakers. Women respondents stated that certain basic necessities should be made integral part of public toilets included running water and soap, female caretakers (or trained older male caretakers), women only blocks, toilets in or near petrol stations, bus stops and railway stations, a choice of squatting and raised seats, and means for disposal of sanitary pads.

I. Safety and Privacy

Privacy and safety are two important factors, which determine that women and girls do not face the risk of violence while using a public toilet. Public perception has an important influence on how toilets are used, if a user (woman) thinks a facility is unsafe, it will force her to use potentially less hygienic alternatives. Women's safety and privacy is threatened by a number of factors such as poor or flawed design of a toilet like open roofs which allow men to peek in, broken doors and latches, insufficient lighting, men and boys loitering around the toilets or passing comments on women and girls and the absence of a caretaker (female). Philanthropy foundation, Dasra (2012) published a study, which states that approximately 30% of women from the underprivileged sections in India experience violent sexual assaults every year because of lack of sanitation facilities (Sharma et. al., 2015). Shalini, a 23 years old student, remembers her experience of using a public toilet. She said “once near a toilet a group of boys was standing and gazing at women and girls entering or exiting the toilet, which made her uncomfortable”.

A study conducted by Water Aid and DFID on Sanitation and Hygiene in 2011, showed that women living in urban slums of Delhi reported specific incidents of girls under 10 “being raped while on their way to use a public toilet”. While

sexual assault is an important issue, what need to be highlighted and addressed is the discourse on safety. The concern with the safety of 'mothers, wives, sisters and daughters' often has very little to do with their physical safety and everything with their sexual safety. The rape of a woman is more often an issue of honor reputation of family than of physical harm. Women have internalised the patriarchal notion of sexual safety and pay less attention to other ways in which they may risk their personal safety. For instance, limiting their fluid and food intake, avoiding the use of toilets after evening, using it only once that too in early morning, they prioritise their sexual safety over their physical safety and causing greater damage to their bodies. This emphasis on sexual safety also restricts women's access to public places (Phadke, 2007 and Sharma et. al. 2015)

II. Accessibility and Visibility

Many people experience difficulties using water and sanitation facilities, such as older people, people with disabilities, pregnant women, small children and people who are injured or sick. Ensuring accessibility to all users contributes to inclusion, better health, empowering individuals, as well as meeting the human right to sanitation. Access to public toilets and their location are a major concern for women who need sanitation facilities outside their homes. The lack of access to clean toilets and personal hygiene increases the chances of suffering from chronic constipation, severe white discharge, heavy menstrual bleeding, bladder inflation, stomach aches, kidney stones, skin problems, urinary tract infections, psychological stress, anxiety and so on (Sharma et. al., 2015). Apart from this complication during pregnancy and postnatal recovery can further aggravate due to lack of toilet facility.

Eliza, a 26 years old student said because of the lack of toilet facility at Sarsol bus stand, she usually avoids drinking water when travelling. She further

added that the government should take into consideration the needs of women as more women are travelling these days for work and studies. Sarah Moore argues that the lack of adequate toilets for women is a form of subtle discrimination aimed at keeping the status of women lower than men. She notes: 'It often goes unnoticed and is considered normal, natural, or acceptable' (Moore, 2002).

On the location of toilets respondents have different opinions. Sharddha, 35 years old, school teacher said 'secluded toilets increase the risk of emotional violence and sexual violence', in her opinion toilet should be located on or near the main roads to avoid crimes. Roli, who works in a beauty parlour, has a totally different opinion on the location of toilets, she said 'if they are located on main roads men will always watch women. Manisha, a housewife, echoed the concerns of Roli, in her view 'if a public toilet is located on a busy road, women would feel shy to use it because it would be surrounded by men'. In her opinion it is better to have toilets on internal roads'. Another problem which is faced by women while accessing the public toilets is that they are usually open for a limited time. Most of the public toilets are closed during night time while urinals are opened for 24 hours, this reflects patriarchal moor that women do not go out of their houses during night time. As Phadke argues, keeping toilets open all night would send a message to women that they have a right to be in public spaces.

III. Infrastructural and Maintenance Problems

One aspect which was common among most of the respondents were the poor conditions of public toilets in Aligarh city. The most basic requirements and amenities for clean and hygienic maintenance of public toilets are missing, including necessary things like requisite supplies of buckets, mugs, mirrors, soap for washing hands, regular supply of

clean water and an odourless and clean environment. These are critical aspects which shape a user's experience. Infrastructure of a public toilet is determined by a number of factors like location of the toilet, does a toilet facility charge its users or it is free for all, authority responsible for maintenance of a toilet and also on the civic sense of its users.

Lokesh, 41 years old factory worker, highlighted the fact that, how caste and class play an important role in accessing a public toilet. She said there are no separate toilets for women in the lock factory where she works, both men and women have to share a toilet which makes her uncomfortable, because of which she avoids drinking water during her work hours. She further added how public toilets are not meant for women like her “most of the places there is a fee which people like us can't afford regularly, and when a toilet is free of cost, it is poorly maintained with no facilities at all. Lokesh's experience highlighted the intersectionality of gender and class while accessing public toilets, as she described 'women from big houses can use the toilets in malls or hotels but nobody will allow us to even enter there'. For her public toilets means nothing but 'going out in the dark in the open field when no one is looking'.

For the working-class women, the lack of toilets is an everyday reminder of her unwantedness in the city. For women residing in slums, for instance, toilets are often a great source of anxiety. Such women wait for the cover of darkness in order to relieve themselves on the open street; often not drinking fluids during the day so as to avoid the nuisance of trying to find a toilet they could use. Even when there are public community toilets, they are not always safe, particularly at night when the dimly lit streets and dark cubicles can seem forbidding. (Phadke et. al. 2011)

The way women and women use toilets for urinating is different from each other due to their

physiology, but it is never considered mainly because of the predominance of male engineers and city planners. Aarzu, a 27 years old homemaker, raised an important point regarding the structure of the toilet seat. She said “it's better to have an Indian style toilet seat rather than western toilet” as in her view “one has to sit on a western commode which is unhygienic”. Though Aarzu's opinion is valid to an extent but it is detrimental for older women who may not be able to squat, because of their older age.

Shobha, 34 years old, homemaker talks about how it is difficult for her to go out with her 5 years old son due to flawed design of public toilets. She said “going out with her son is difficult, as there are no special facilities for children in a public toilet”. According to her, washing hands for children becomes challenging due to the height to wash basins. She also said “if she is alone with her son and there is no caretaker to look after her son”.

Women with young children have to further contend with the unfriendliness of the city's public spaces (streets, railway stations, parks) and semi-public spaces (malls, restaurants, department stores) towards providing the most basic childcare amenities – mainly a comfortable place to breastfeed, a clean stop to change the bay's spoiled nappy, toilet seat sized for a child's bottom, and low-level wash basins positioned at a child's height. Where facilities are provided, they are tucked away only in the women's toilet, assuming that mothers carry the sole responsibility of childcare. All this then further restricts the mobility of women with young children. (Phadke et. al., 2011)

For women and girls' access to a toilet becomes critical when they are menstruating. However, menstruation being a taboo subject and the stigma attached to it, make it even difficult to add design which would help menstruating women. Most of the respondents said they totally avoid using a public toilet when menstruating as there is no place

for disposal of used sanitary pads. It is important to note that advertisements of sanitary products claim to solve this lack of facility as they assert on the fact that their product could be used for hours without a need to change it.

Maintenance of a public toilet is not a sole responsibility of the government or the organisation authorised for its functioning. It is the duty of the users to keep it clean and not to misuse it. The role played by management staff that supervise and clean public toilets was essential for the study. This helped understand the challenges faced while maintaining public utility systems as well as assessing the role being played by the local community in supporting clean and hygienic sanitation facilities Sushil, caretaker of toilet near Gandhi Park said “what we can do if people do not change, people stole mugs and soaps from the toilet, so now we have stopped replacing them. People spit here and there, and the same people will complain about cleanliness”.

The disparity in the provision of public toilets for women is often justified in terms of the disproportionate usage of public spaces by women relative to men. While it may be true that there are fewer women in public than men, it is assumed that this will always be the case. However, the lack of public toilets for women cannot be seen in isolation as just a matter of oversight by town planners or simple lack of attention to their rising numbers in public. It reflects underlying notions of purity and pollution, particularly those connected to the female body. Since both women and toilets are seen as contaminating in relation to public space, a language of shame pervades any discussion of toilets for women. This adversely affects the actual provision of toilets for them. Any discussion of women's bodily functions is immediately seen as linked to their sexuality and hence to be silenced. (Phadke et. al., 2011)

Suggestions: A Female-Friendly Toilet

The overarching objective of creating a new norm for the design and provision of female-friendly toilets is to ensure that girls and women feel confident, safe, and dignified in managing their daily sanitation. To address girls' and women's distinct sanitation needs, including the management of menstruation and other vaginal bleeding, more supportive design components should be incorporated into basic standards for the construction of female-friendly toilets Female-friendly public and community toilets must:

1. Public toilets should be in a safe location and should have a clearly marked female toilet section with a separate entrance. It is also necessary that toilets are well lit, with trained male and female attendants.
2. Public toilets must have a regular supply of water and soap, access to menstrual products and a means for washing and/or disposal of menstrual products. Simple provisions like hooks, mirrors and shelves can make toilets more user friendly.
3. Toilets design must be inclusive for all including person with disabilities and transgender and other gender non- conforming individuals. It should be at a reasonable distance from homes or marketplaces or other public spaces. All toilets should be reachable via an accessible path and have at least one cubicle accessible to all users.
4. Toilets should have enough cubicles to avoid long queues, which means allocating extra space and cubicles for women; be open when needed; have an affordable tariff or be free.
5. Public Toilets must have adequate management arrangements and cleaning and maintenance budgets. They should also have an eco-friendly system for safe management of faecal, liquid and solid waste.

6. An inclusive toilet should have a changing station for cleaning babies; with separate toilets for children at an adequate height.

Conclusion

The objective of this study was to find out how lack of public toilets in Aligarh city impacted the mobility of women. The findings reveal that for many women accessing a safe toilet in public places is a major issue. Most of the time women avoid drinking fluids when they go outside or try to control the urge to pee, it not only has a severe impact on their health but also limits their participation in the public sphere as a citizen. City planning and infrastructure tends to ignore women from public places. It thus becomes important to recognise that women do exist in public spaces that they do need to relieve themselves as much as men, and that they are active agents who try to find their access to toilets.

This study shows that access to decent toilet facilities is still a major problem for women. Poor

sanitary conditions of toilets, and long travel distance and wait times, do not support the human dignity of the individual. Several steps are necessary to address the gap in toilets' supply. An understanding of the barriers to establishing toilets in homes is necessary in guiding the appropriate policy response in order to encourage increasing the supply of suitable toilet facilities.

Inclusive, well designed neighbourhood outdoor and public spaces improve people's health and quality of life. Access to toilets is central to this. Availability, design and location of public and community toilets affect how people use and move through these public spaces, so can affect their participation in social and economic life. Women and girls move around cities and towns every day, so efforts to provide female-friendly public and community toilets need to be city-wide, and the processes involved must be gender-sensitive. This includes assessment of gaps in provision of public and community toilets at the whole town or city level, devising strategies to address those gaps, and managing local-level implementation.

References

1. Phadke, Shilpa. "Dangerous Liaisons: Women and Men: Risk and Reputation in Mumbai." *Economic and Political Weekly*, vol. 42, no. 17, (2007), pp. 1510–18,
2. Phadke et. al., 2011, "Why Loiter? Women & Risk on Mumbai Streets", New Delhi: Penguin Books.
3. Sharma, Anushree. et. al., "Understanding Issues Involved in Toilet Access for Women", *Economic and Political Weekly*, vol. 50, no. 34, (August 22, 2015), pp: 70-74.



ROUND & ABOUT

Mr. Fazalahmed Khan
Advisor, AILSG, Mumbai

Swachh Bharat Mission (Urban) Mission 2 and AMRUT Mission 2.0 launched

The Swachh Bharat Mission (SBM) - Urban was launched on 2nd October 2014 with the objective of making urban India free from open defecation and achieving 100% scientific management of municipal solid waste in 4,041 statutory towns in the country. Another mega mission of the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) was launched in 2015 with the aim of providing basic civic amenities like water supply, sewerage, urban transport, and parks so as to improve the quality of life for all, especially the poor and the disadvantaged. The focus of the Mission is on infrastructure creation that has a direct link to provision of better services to the citizens. After their period was over they were extended for about two years. Now both these mega missions have been launched again as **SBM 2.0 and AMRUT 2.0** on 1st October, 2021. In their first version these missions have made a huge impact on urban areas in respect of their objectives. Their re-launch for another five years will, it is hoped, make a major impact on urban areas in respect of their goals.

(Reference: Website of Ministry of Housing & Urban Affairs, Media reports, The Times of India, Mumbai, 13th October, 2021).

26th Conference of Parties relating to Climate Change

In the previous issue, prominent findings of IPCC 6th Assessment Report (The Physical Science Basis) were briefly mentioned. The Assessment Reports constitutes the Authorized Version on the explanations of climate change, its causes, its features, likely impacts, etc. The Intergovernmental Panel on Climate Change (IPCC) is the authoritative body under the auspices of the United Nations. A large team of top scientists deputed by many countries, work for the IPCC. Another component of climate change management is the forum of United Nations Framework on Climate Change (UNFCCC), under whose auspices a conference of all the parties (countries) is held annually, every year in a different country. In this conference a review of the action taken by the parties in response to targets given under Paris Agreement is taken; representatives of the parties make their presentation and suggestions, deliberations (often intense and heated discussions) are held on the basis of progress of (lack of it, on any component, if any) and finally decisions are taken.

A major event relating to climate change took place during this quarter was in the form of the Conference of Parties (COP) 26 at Glasgow from 31st October to 13th November 2021 at Glasgow, Scotland, U.K. Mr. Alok Sharma, U.K. cabinet was the chairman of the conference. Prime Minister Narendra Modi along with Mr. Bhupendra Yadav, Union Minister for Environment, Forests and Climate Change participated in the conference. It may be noted that the Paris Agreement, 2015 constitutes the plan of action for all the countries.

Journalists from most of the countries cover the conference, and the proceedings of the conference over a period of two weeks are widely reported in the media. A few major decisions of the conference as reported in the press are as under:

The conference-

- Urges countries who have, so far not updated new plans to do so by next year.
- Requests all countries to raise climate targets in line with 1.5-20 C warming limit by end of 2022.
- Gives signal to countries to accelerate shift off fossil fuels, coal to renewable energy.
- Developed countries will double collective adaptation finance by 2025 from 2019 levels. (From this finance, inter alia, developing countries are helped to adopt better technologies for adaptation to climate change).
- All countries should deliver climate plans to the UN on 5-year cycles, starting 2025.
- The outcome of the conference was also significant as the conference finalized the rule book of Paris Agreement 2015, which was under discussion for the last six years.

What the Paris Agreement Rule book missed out-

- The item of 'loss and damage' lacks a clear plan for funding facility.
- Various developing and poor countries are suffering huge losses on account extreme climate events. The Rule Book does not contain any definite plan to compensate disaster hit countries.

(References: Website of UNFCCC. Particularly information about decisions of the conference is courtesy The Times of India, Mumbai dated 15th November, 2021)

NAINA - A New City coming up near Mumbai and Navi Mumbai

NAINA is a beautifully word used in poetry and love stories for the eyes of the beloved. Beloved also refers to the tears in her eyes because of her lover being away (*naina barse rim jhim*). That apart, what we are referring to is the New Airport Influence Notified Area, a new city planned by the Government of Maharashtra and being executed by the CIDCO, which is the planning authority for the mega project.

Urbanization is a highly developed field of practical application and academic study and research. A number of factors contribute to urbanization and its growth. Coming up of a new city is a major happening in the progress of urbanization as a new urban settlement is formed. Generally, *peri-urban* areas, around the limits of a city grow on account of various factors and when reaching a certain level of

population and non-agricultural activities an urban local body is formed. Similar is the case of project colonies, port areas. Another form of a new city coming up is the conscious decision of the Government to set up a new city. First is the case of satellite towns which are set up to decongest the main city, or to shift some of the industries to that city, or to accommodate new industrial and services development, etc. These are aptly called *satellite town*. Satellite towns of New Delhi are a bright example the wonders that the satellite towns have done there.

The other form is setting up a new city for a specific purpose. New Delhi was developed as country's capital by the British Government. It took two decades to create this marvelous city dotted with iconic buildings, boulevards and wide road networks. Chandigarh was developed to provide state capital to Punjab after the partition.

Although intention of Government of Maharashtra to set up NAINA was announced a few years ago, its planning has now taken shape. Its total area would be 371 sq km of land in Thane and Raigad districts. (Mumbai's total area is 481 sq km). CIDCO has been appointed as the special planning authority for the project. The goal of the project is to create a sustainable city containing residential, economic, educational and other fundamental civic amenities. According to the press statement of the Vice-President and Managing Director, CIDCO, Mr. Sanjay Mukherjee, "*NAINA will be developed as city of international standards with opportunities for business to flourish....as a part of conglomeration, CIDCO is developing dedicated sectors like medical city, sports city, education city, research and development zone, eco-tourism, entertainment region, etc.* The planned integrated development will have the influence of Navi Mumbai International Airport, Jawaharlal Nehru Port Trust (JNPT) and proposed transport corridors including Multi Modal Corridor, Mumbai Trans-Harbour Link (MTHL), Dedicated Freight Corridor (DFC), etc. The Government of Maharashtra has last year notified Unified Development Control and Promotion Regulations (UDCPR) for the all the urban local bodies in the State. On account of applicability of these rules, everything from the height of buildings to the width of roadways and amount of amenity space will be specified by this set of standard set of laws.

(Reference: Website of CIDCO, Economic Times, Mumbai, dated 22 November, 2021).

RBI for more Functional Autonomy to Civic Bodies

The world has just passed through a pandemic which, for some time, had brought to halt the whole economic and usual activities and caused large number of deaths. It is lingering to some extent in India and in the world. The doctors, nurses and whole range of paramedic staff and conservancy emerged as real heroes of the society, battling COVID-19 day in and day out and saving millions of lives. It was a combat with the deadly infection and some of them laid down their lives so that others may live. They are martyrs. Most of the medicos, paramedics, ambulance drivers with their attendant staff and conservancy workers who were in the frontline, belonged to municipalities- municipal corporations or municipal councils. While the government, all the people and the institutions appreciated their heroic role, acknowledgement of the role of the municipalities coming from the monetary authority of India is

greatly encouraging. The Reserve Bank has come in support of municipalities asking government to give more functional autonomy to civic bodies as the COVID pandemic put severe strain on this third tier of the government. RBI's recent report on state government's finances, inter alia, says *“With the third tier governments in India playing a frontline role in combating the pandemic by implementing containment strategies, healthcare, quarantining and testing facilities, organizing vaccination camps and maintaining the supply of essential goods and services, their finances have under severe strain, forcing them to cut down expenditures and mobilize funding from various sources.”* According to the RBI's report, increasing the functional autonomy of the civic bodies, strengthening their governance structure financially empowering them via higher resource availability through self-resource generation and transfers are critical for building resilience and effective interventions at the grass-root level.

(Reference: The Times of India and Economic Times, (both Mumbai editions) dated 1 December, 2021).

Where are we Taking Mumbai City?

A joint team of researchers from three Universities – Jamia Millia Islamia (New Delhi), Osmania University (Hyderabad) and Aligarh Muslim University, conducted with the title Urban Heat Island Dynamics in Response to Land Use/Land Cover Change in Mumbai. The report of the Study was published in peer-reviewed Springer Journal of the Indian Society of Remote Sensing.

City's built-up area doubled in 27 years 81% open land lost.

SAT images show: 40% green cover gone (between 1991 and 2018).

Mumbai had 173 sq. km area in 1991- 346 sq.km built up area in 2018.

What was lost? (a) 81% of open land. (b) 40% green cover (c) 30% of water bodies

Lead author of the study writes that *“We found that rapid uncontrolled urbanization over the past five to six decades attracted a large population by providing better economic opportunities. As a result, natural land use patterns, such as vegetation cover, scrublands, wet lands and open lands have been transformed on a large scale in to the city's built up surfaces/”*

The study used satellite imagery (USA-NASA Land Statistical data sets freely available) and the authors studied 603 sq.km of Mumbai region (city and suburbs) to understand land use and land cover images, difference in maximum, minimum and average temperature (for urban heat island intensity) and land surface temperatures, changes in vegetation cover versus urban built-up density between 1991 and 2018. The findings were represented in the form of high resolution maps and attempted to enhance urban planning and policy decisions mitigating the Urban Heat Island effect. The study says the extreme heat that one experiences when strolling through any urban landscape is caused by the

Urban Heat Island effect, a micro-climatic phenomenon. This is due to a number of causes, the most prominent being the usage of materials such as concrete, explained Prof. Atiqur Rahman from Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia.

(Reference: The Times of India, Mumbai dated 19 October, 2021).

NITIAYOG's Urban SDG Index

The Sustainable Development Goals (SDGs) are a collection of 17 interlinked global goals designed to be a "blueprint to achieve a better and more sustainable future for all". These are meant to be global i.e. followed by all the countries. The SDGs were set up in 2015 by **the United Nations General Assembly (UN-GA)** and are intended to be achieved by the year 2030. NITI AAYOG has developed the SDG Urban index and dashboard 2020-21, in collaboration with GIZ and BMZ under the Indo-German Development Cooperation. SDG Urban India's Index and gathered information from urban local bodies to assess their performance in respect of SDG goals related to urban sector. Ranking of 56 ULBs was done on 77 SDG indicators across 46 targets. For each SDG, the urban areas are ranked on a scale of 0-100. A score of 100 implies that the urban area has achieved the targets set for 2030. A score of zero would imply it has achieved nothing in respect of the target given. The following table shows the best performers, and poor performers along with the score.

Top 10 Urban Areas	Score	Bottom 10 Areas	Score
Shimla	75.5	Faridabad	58.6
Coimbatore	73.3	Kolkata	58.5
Chandigarh	72.4	Agra	58.2
Thiruvananthapuram	72.4	Kohima	58.1
Kochi	72.3	Jodhpur	58.0
Panaji	71.9	Patna	57.3
Pune	71.2	Guwahati	55.8
Trichirapalli	70.0	Itanagar	55.3
Ahmedabad	69.8	Meerut	54.6
Nagpur	69.8	Dhanbad	52.5

As mentioned above in the text this is the transparent and methodical assessment.

(Reference: Website of NITI AAYOG, The Times of India, Mumbai and The Indian Express, Mumbai, both dated 24 November, 2021).

**Regional Centre for Urban and Environmental Studies, Mumbai
Advisory Committee**

♦ Ms. Mahesh Pathak, IAS	Principal Secretary, Urban Development, Government of Maharashtra, Mumbai.	Ex-Officio Chairman
♦ Mr. Sanjay Kumar, IAS	Joint Secretary (DAY-NULM), Ministry of Housing and Urban Affairs, Government of India, New Delhi.	Member
♦ Mr. Mukesh Puri, IAS	Addl. Chief Secretary Urban Development and Urban Housing Department, Government of Gujarat, Gandhinagar.	Member
♦ Mr. Kunji Lal Meena, IAS	Principal Secretary, Urban Development and Housing Department, Government of Rajasthan, Jaipur.	Member
♦ Dr. Tariq Thomas, IAS	Secretary, Urban Development, Government of Goa, Goa.	Member
♦ Smti Monalisa Goswami, IAS	Commissioner & Secretary to the Government of Assam, Urban Development, Govt. of Assam, Guwahati, Assam.	Member
♦ Mr. Kirankumar Gitte, IAS	Secretary, Urban Development, Government of Tripura, Agartala, Tripura.	Member
♦ Mr. Surendra Nath Tripathi, IAS (Retd.)	Director-General, Indian Institute of Public Administration, Indraprashta Estate, New Delhi.	Member
♦ Dr. (Ms.) Uttara Sahasrabudhe	Professor & Head, Department of Civics and Politics, University of Mumbai, Mumbai.	Member
♦ Dr. Jairaj Phatak, IAS (Retd.)	Director-General, All India Institute of Local Self-Government, Mumbai	Member
♦ Ms. Utkarsha Kavadi	Director, Regional Centre for Urban and Environmental Studies, All India Institute of Local Self-Government, Mumbai.	Member-Secretary

**Regional Centre for Urban and Environmental Studies (RCUES), Mumbai
(Fully supported by Ministry of Housing & Urban Affairs, Government of India)
undertakes**

Urban Policy Research.
♦
Tailored Training and Capacity Building Programmes in Urban Management and Urban Governance.
♦
Capacity Building for Urban Poverty Alleviation.
♦
Anchoring Innovative Urban Poverty Reduction Projects (Aadhar) for Municipal Corporations.
♦
Project Management & Social Auditing.
♦
Information, Education & Communication (IEC) in Urban Sector.
♦
Training of Trainers (TOT) in Urban Management.
♦
Technical Advisory Services in the Urban Development Urban Management Sector
♦
Study Visits for ULBs for Experience Sharing and Cross Learning
♦
Community Based Interventions.
♦
Human Resources Development.
♦
Interdisciplinary Programmes.
♦
Knowledge Management.
♦
Networking.

**Regional Centre for Urban & Environmental Studies
All India Institute of Local Self-Government, Mumbai**

Bandra Kurla Campus:

All India Institute of Local Self-Government

M. N. Roy Human Development Campus, Plot No.6, TPS Road No.12, 'F' Block,
Opp. Government Colony Bldg. No. 326, Bandra (East), Mumbai - 400 051, India

Tel : 8657622550 / 51 / 52 / 54

Email : dir.rcues@aillsg.org

